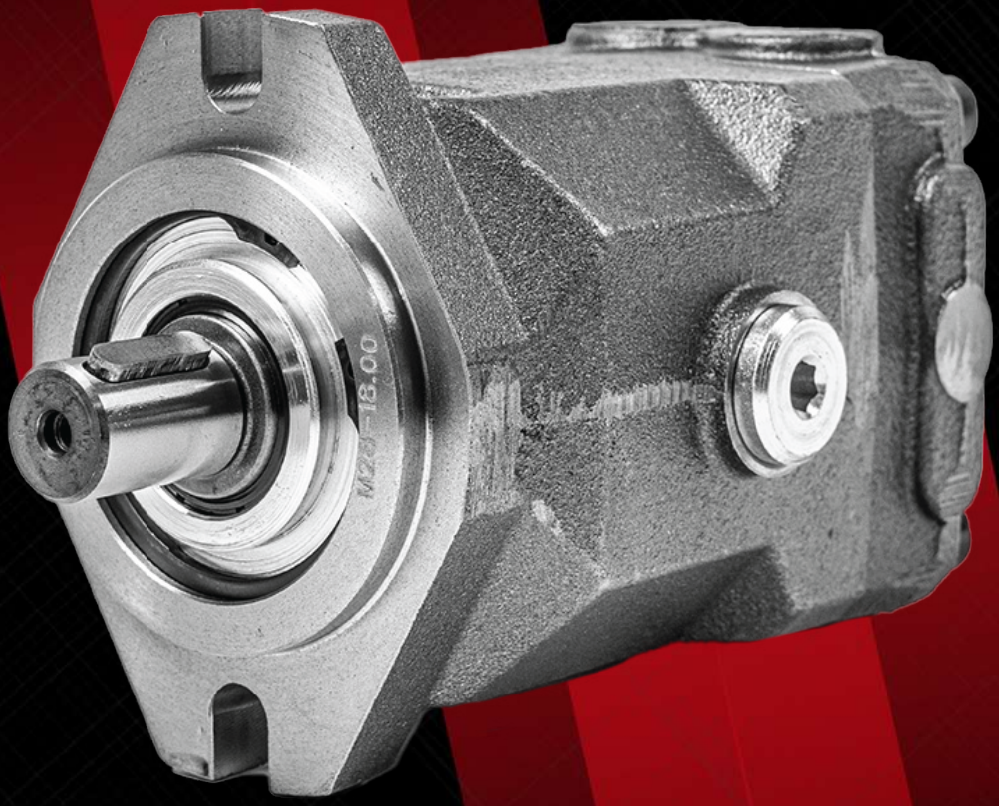


PISTON MOTORS

MF

21-28-35

a cilindrata fissa

CARATTERISTICHE TECNICHE

TECHNICAL FEATURES

I motori a pistoni assiali a cilindrata fissa sono a piatto inclinato e possono operare sia in circuito aperto che in circuito chiuso. L'accurata scelta dei materiali, l'impiego del blocco cilindri in acciaio con boccole riportate, consentono ai motori PWG S.rl. di raggiungere elevate prestazioni in termini di regimi e pressioni di lavoro massimo.

Le loro principali caratteristiche sono:

- Elevato rapporto potenza/peso
- Ottmi rendimenti volumetrici e meccanici
- Lunga durata
- Ingombri limitati
- La valvola di scambio viene montata a richiesta

The fixed-displacement axial piston motors feature a swashplatesystem and may operate in either closed or open circuit. Proper selection of materials and the use of steel cylinder blocks with inserted bushings guarantee the hight performance of the PWG S.r.l. motors, in terms of max. speed and working pressure

The main feature of PWG S.r.l. motors include:

- Exceptionally high power/weight ratio
- Excellent volumetric and mechanical efficiency
- Long life
- Compact design
- Exchange valve filed as optional.

SERIE		MF 21-28-35
Cilindrata Displacement	cc/giro cc/rev	21-28-35
Regime di rotazione max continuo Max rotation speed continuos	min^{-1}	3600
Regime di rotazione max intermittente Max rotation speed intermittent	min^{-1}	4000
Pressione nominale Rated pressure	bar (psi)	250 (3625)
Pressione di punta Peak pressure	bar (psi)	350 (5075)
Pressione massima in carcassa Max case pressure	bar (psi)	1,5 (21.75)
Massima temperatura continua olio Max oil continuous temperature	°C	80
Classe di filtrazione ISO ISO filtration class		ISO 18/16/13, NAS 8
Viscosità olio ottimale Optimized oil viscosity	mm^2/s	15 – 35
Massa Weight	Kg	8,5
Momento polare di inerzia Inertial mess	$N \cdot m \cdot s^2$	15 x 10 - 19 x 10

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CODICE DI ORDINAZIONE
ORDERING CODE

MF 21 - 21	1	B	5	T		

Serie cilindrata / Series displacement

MF 21	**21 CC / GIRO -** 46 CC / REV
MF 28	**28 CC / GIRO -** 64 CC / REV
MF 35	**35 CC / GIRO -** 64 CC / REV

NOTA : Per limitazioni di cilindrata diverse, contattare PWG Srl.
NOTE: For different displacement limitations, contact PWG Srl.

Connessioni / Ports / Anschlusse

1	**Utilizzi A - B posteriori** Users A - B rear
2	**Utilizzi laterali accoppiati** Users A - B coupled sideways
3	**Utilizzi A - B laterali - contrapposti** Users A - B opposite sideways

Senso di rotazione / Direction of rotation

B	**Bidirezionale (Std) -** Bidirectional (Std)

Tipo di abero / Shaft end

1	**Cilindrico Ø22.22** Round shaft Ø22.22
2	**Cilindrico Ø25.40** Round shaft Ø25.40
3	**Scanalato MZ15 -16/32-DP** Splined shaft Z15-16/32-DP
5	**Scanalato MZ13 -16/32-DP** Splined shaft Z13-16/32-DP
8	**Cilindrico Ø25** Round shaft Ø25
H	**Cilindrico Ø30 - CUSTOMIZZATO - MINIMO ORDINE 100PZ** Round shaft Ø30 **- CUSTOMIZED - MINIMUM ORDER 100PCS**

Versione attacchi / Ports

U	**SAE (Filetti UNF)** SAE (UNF Threads)
T	**Porte A-B filelate 3/4" GAS** Ports A-B thread 3/4" GAS

Opzioni / Option

P	**Drenaggio posteriore** Rear drainage
V	**Valvola di scambio** Exchange Valve
M	**Valvola di massima*** Maximum valve*
Q	**Valvola di massima+Valvola di scambio*** Maximum valve+Exchange valve*
R	**Valvola di massima+Drenaggio Posteriore*** Maximum valve+Rear drainage*
N	**Valvola di massima+Valvola di scambio+D. Post.*** Maximum valve+Exchange Valve+Rear drainage*
S	**Sensore di giri** RPM sensor

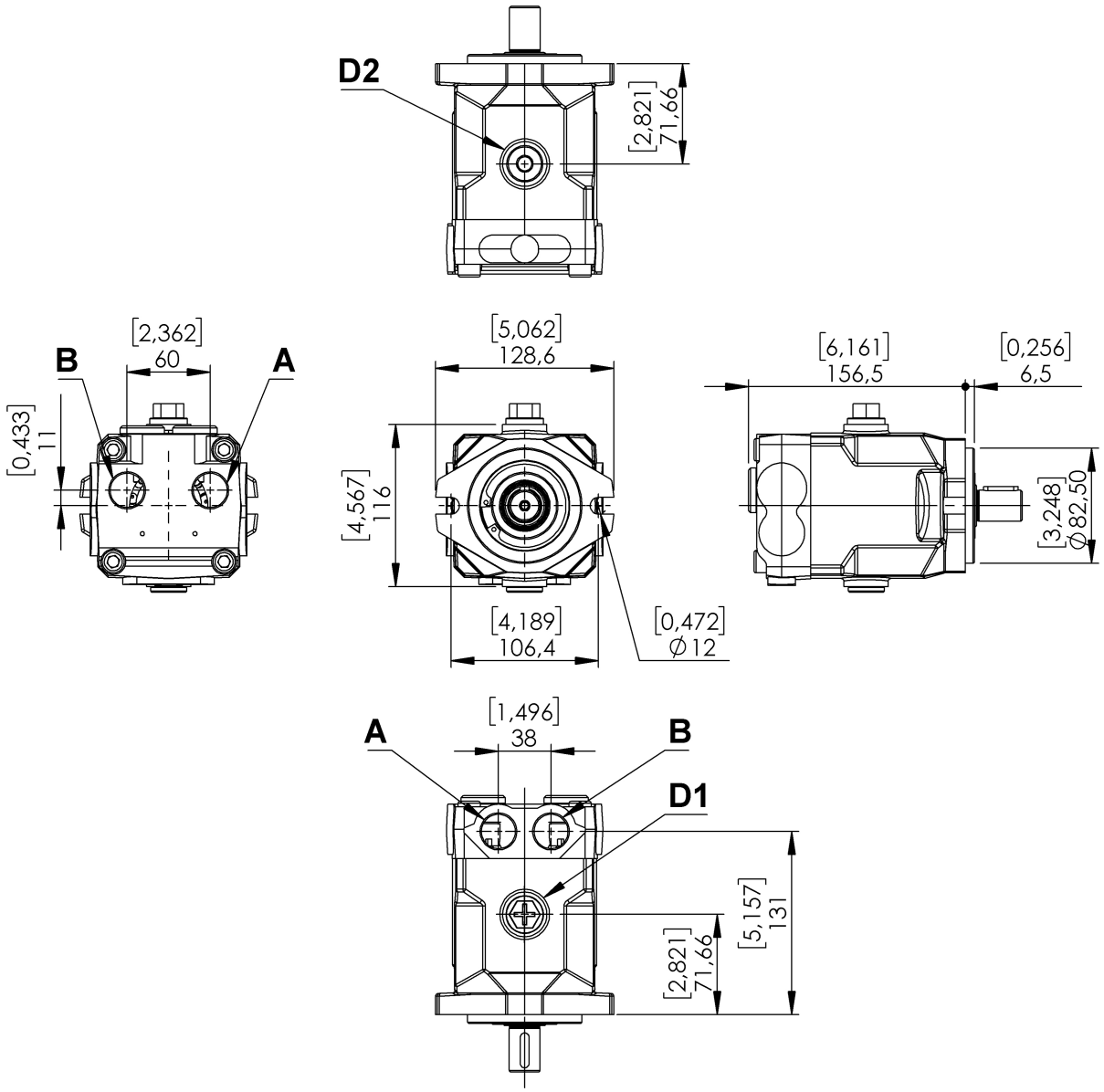
*** NOTA: Per specifiche sulle tarature delle valvole di massima contattare PWG Srl**
* For details on pressure relief valve calibration, contact PWG Srl

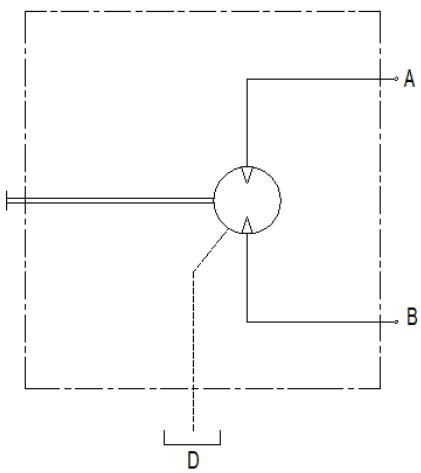
Esecuzioni speciali
Special versions

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DIMENSIONI MOTORE
MOTOR DIMENSIONS

Utilizzi A - B posteriori + A - B laterali accoppiati VERSIONE IBRIDA)
Users A - B rear + A - B coupled sideways (HYBRID VERSION)



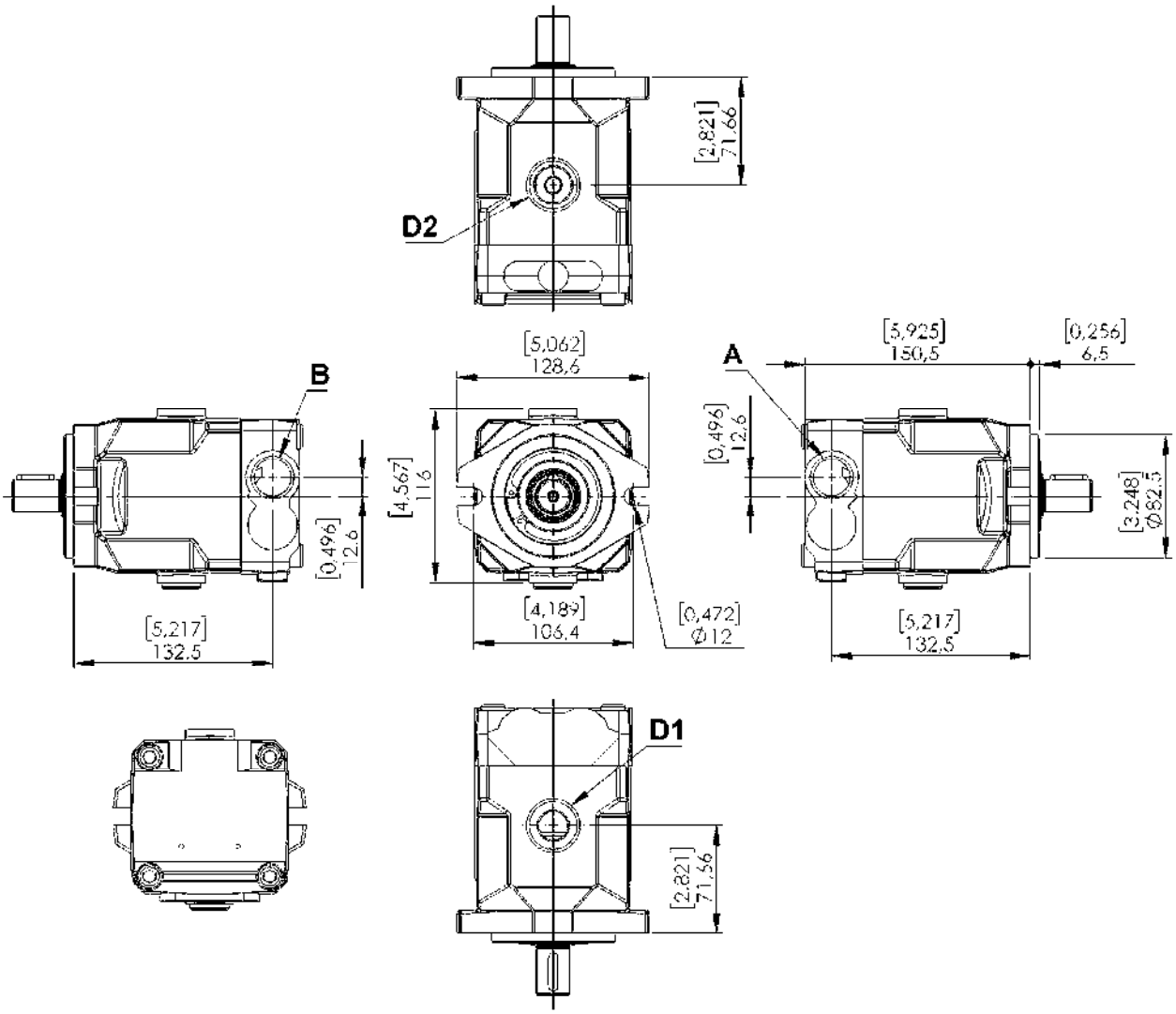


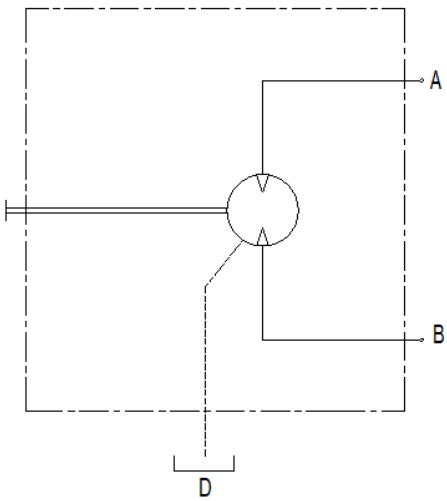
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B

DIMENSIONI MOTORE
MOTOR DIMENSIONS

Utilizzi A - B Laterali Contrapposti
Users A - B Opposite Sideways



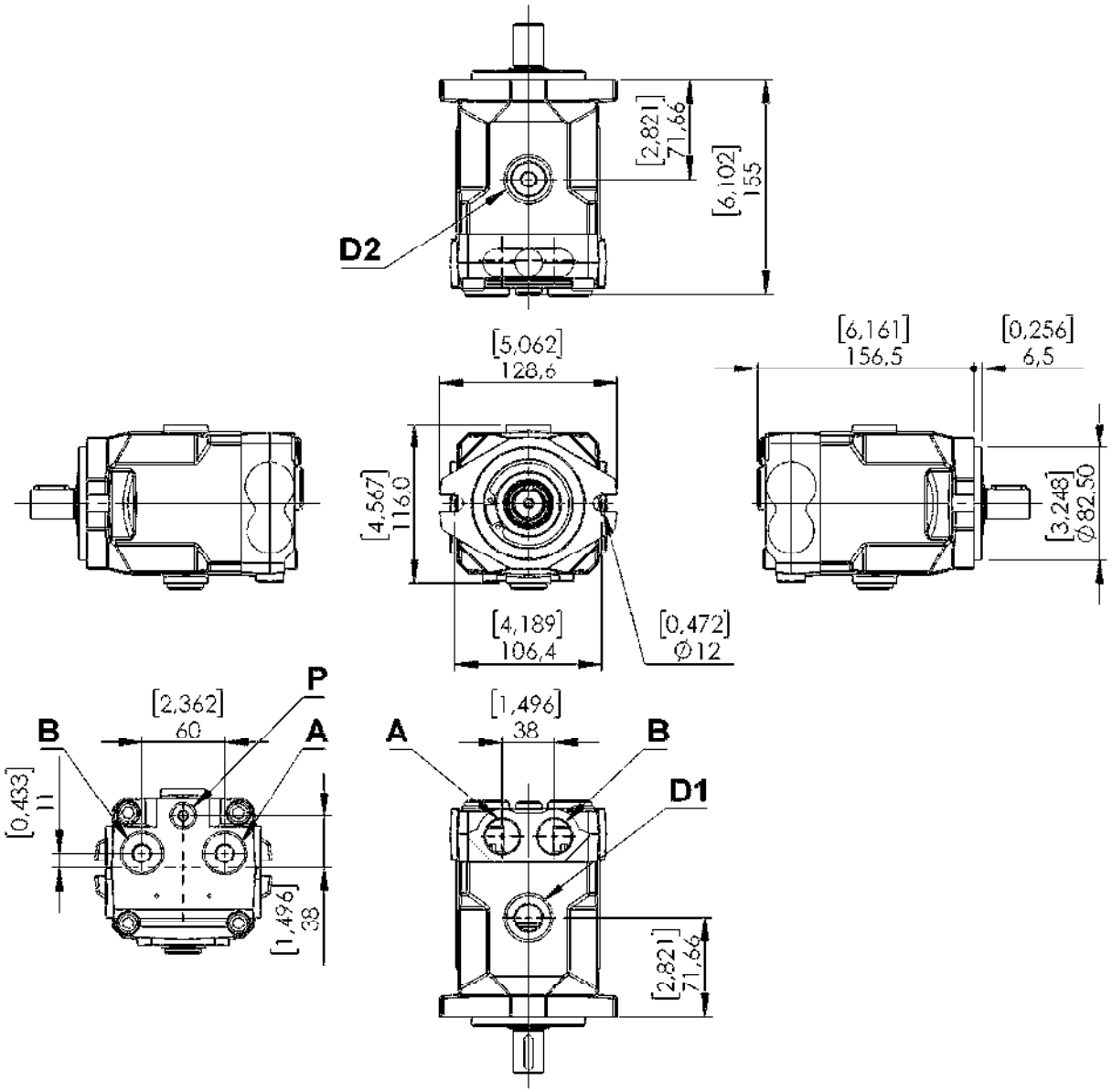


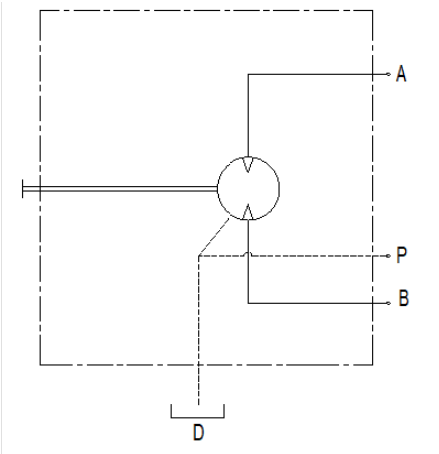
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Drenaggio Posteriore
Rear Drainage



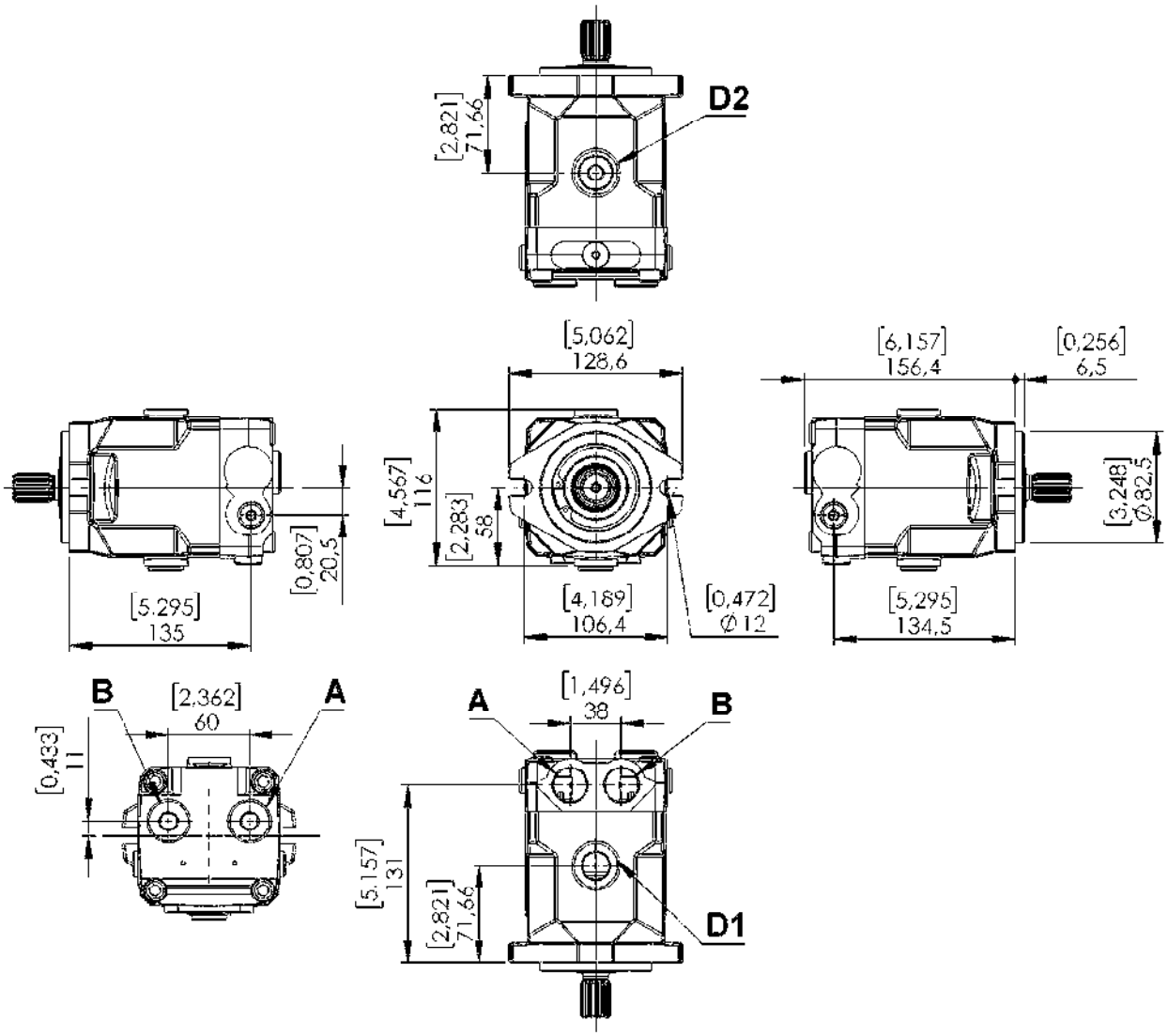


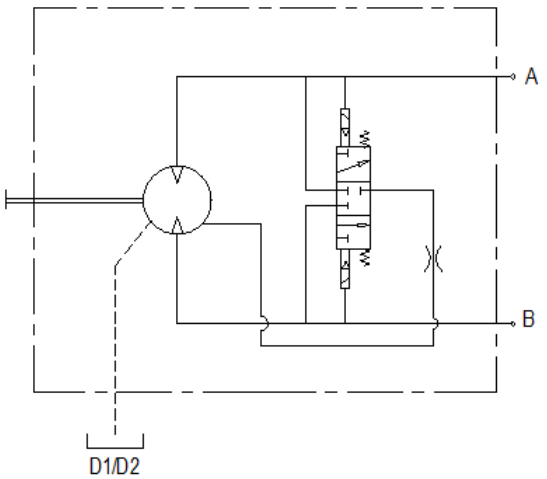
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
P: Attacchi / Ports - 1/4 G (per Drenaggio Posteriore)

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Valvola di scambio (5-7 l/min)
Exchange valve (5-7 l/min)





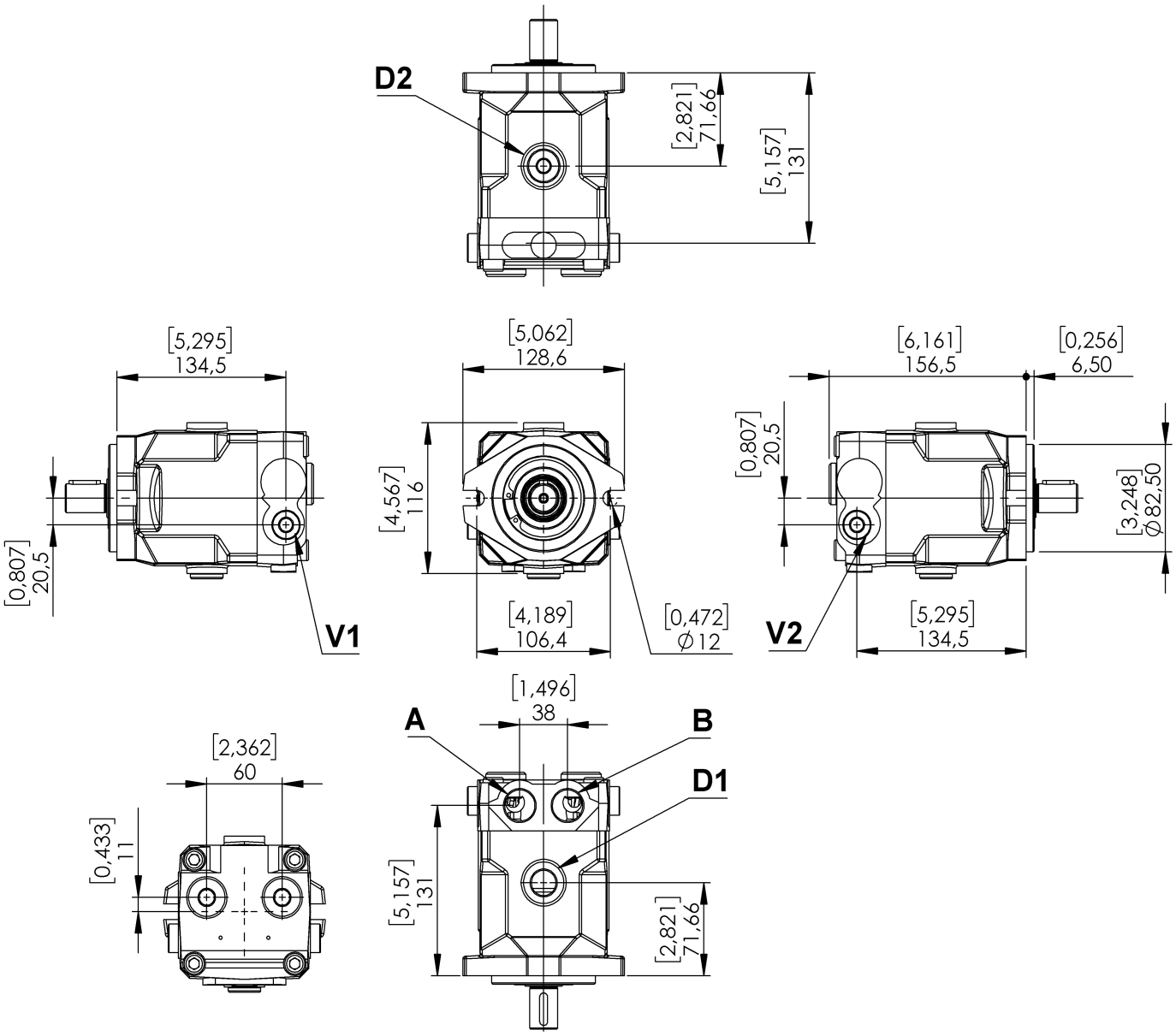
VERSIONE METRICA - METRIC VERSION
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D1 – D2: Drenaggi - Drain ports – 1/2 G

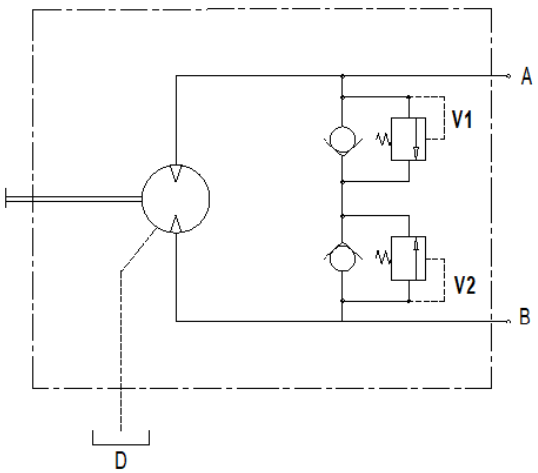
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Valvola di massima pressione
Pressure relief valve

Da specificare taratura e rotazione
To specify calibration and rotation





Da specificare taratura e rotazione
To specify calibration and rotation

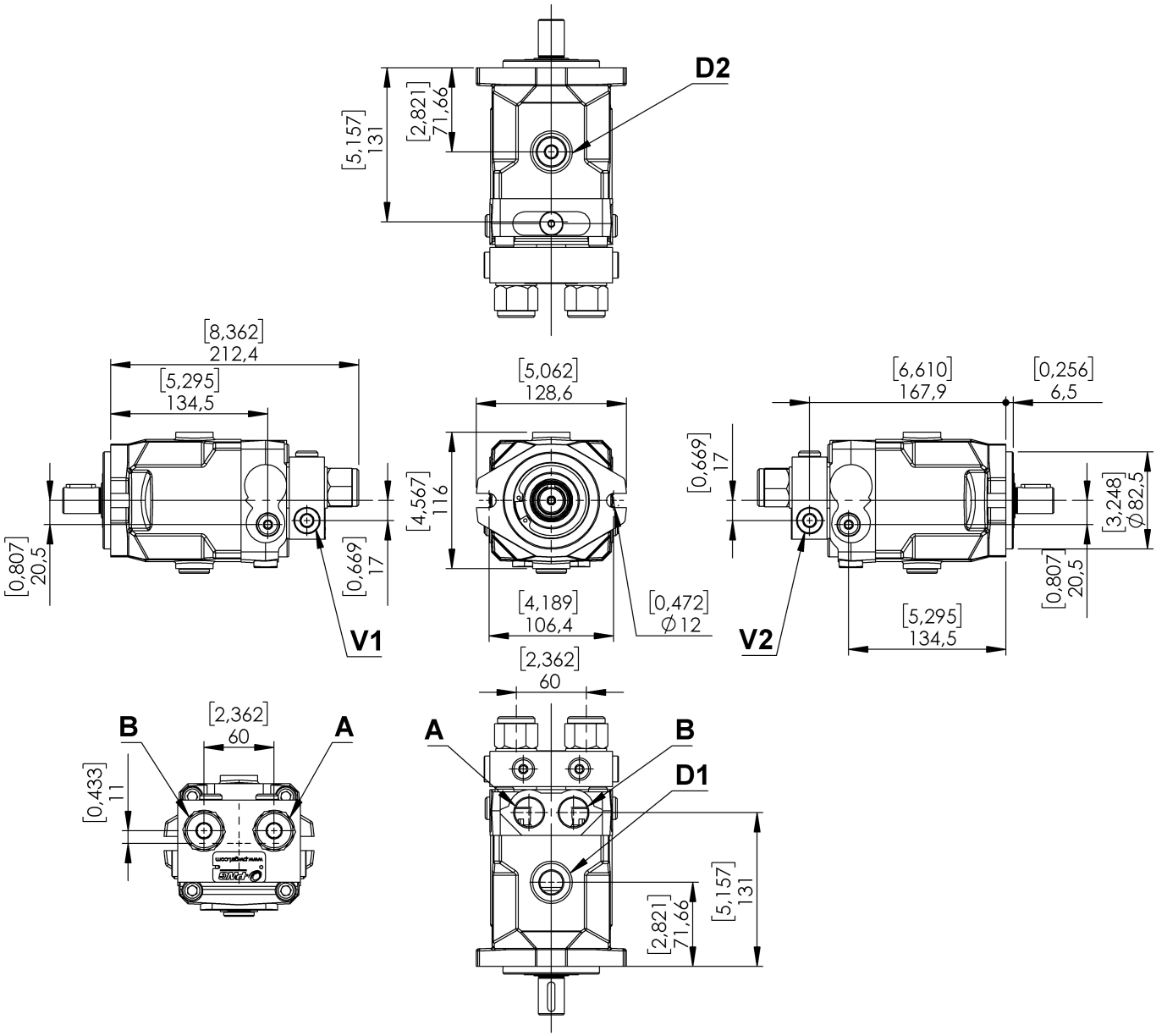
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
V1 – V2: Valvole di massima pressione / Pressure relief valves

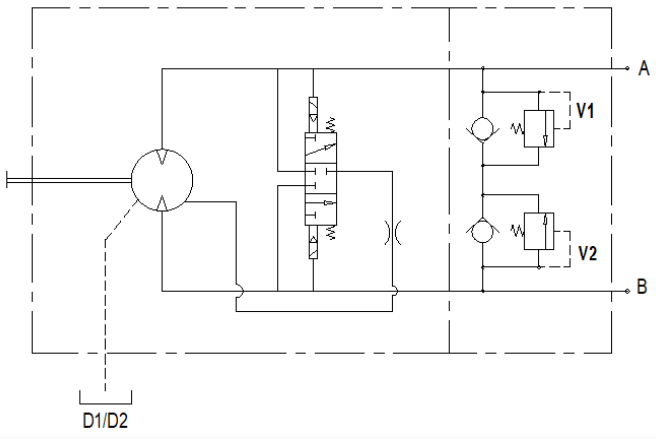
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
V1 – V2: Valvole di massima pressione / Pressure relief valves

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Valvola di massima pressione + Valvola di scambio /
Pressure relief valve + Exchange valve (5-7 l/min)

Da specificare taratura e rotazione
To specify calibration and rotation





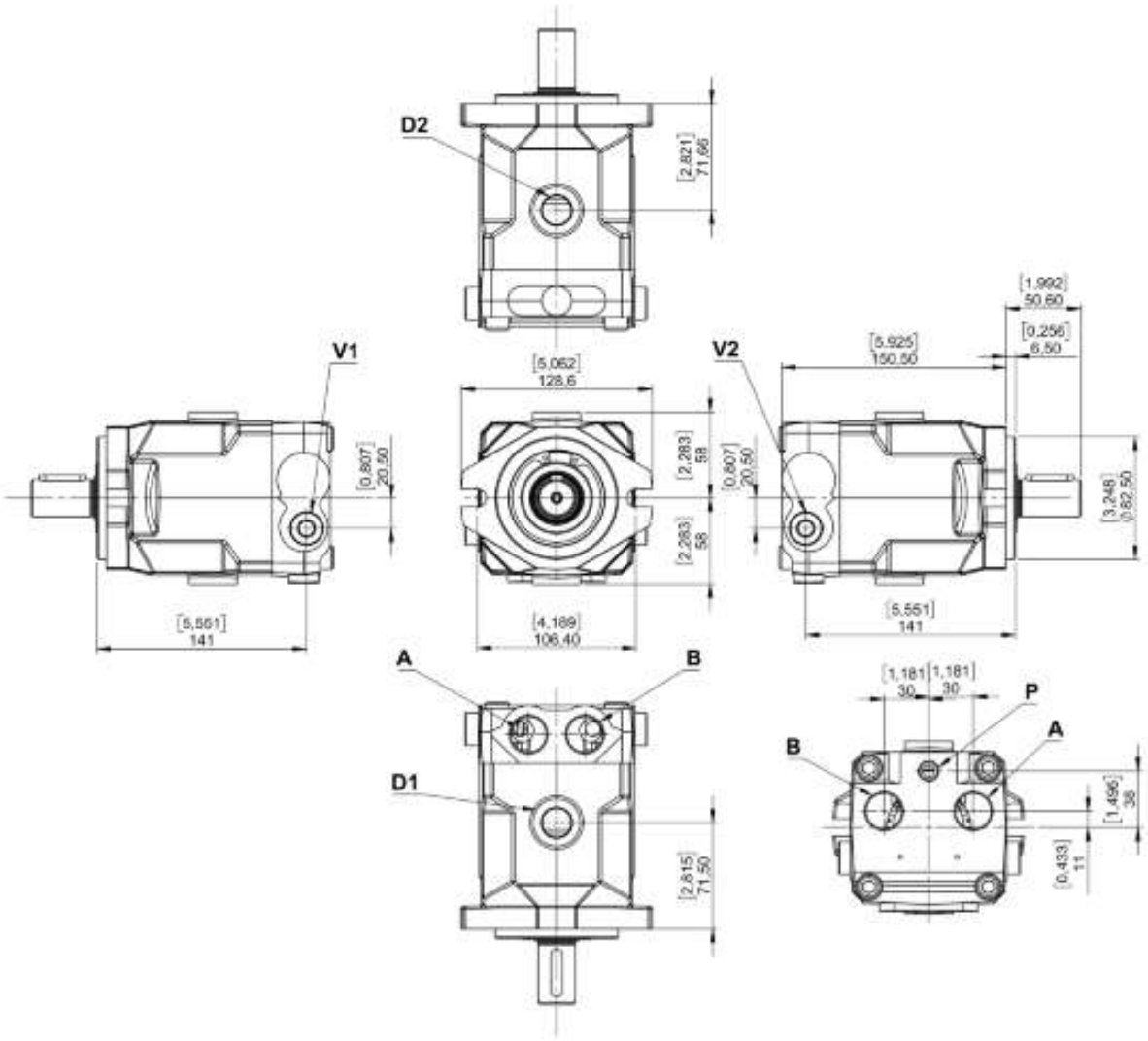
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
V1 – V2: Valvole di massima pressione / Pressure relief valves

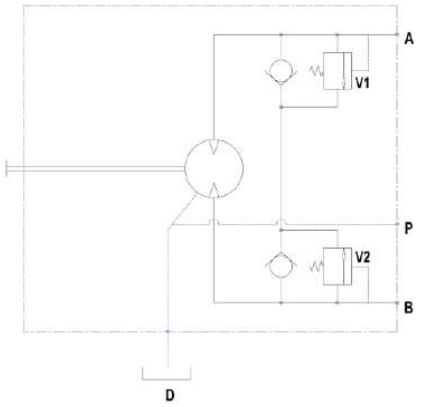
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
V1 – V2: Valvole di massima pressione / Pressure relief valves

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Valvola di massima pressione + Drenaggio posteriore /
Pressure relief valve + Rear drenage

Da specificare taratura e rotazione
To specify calibration and rotation





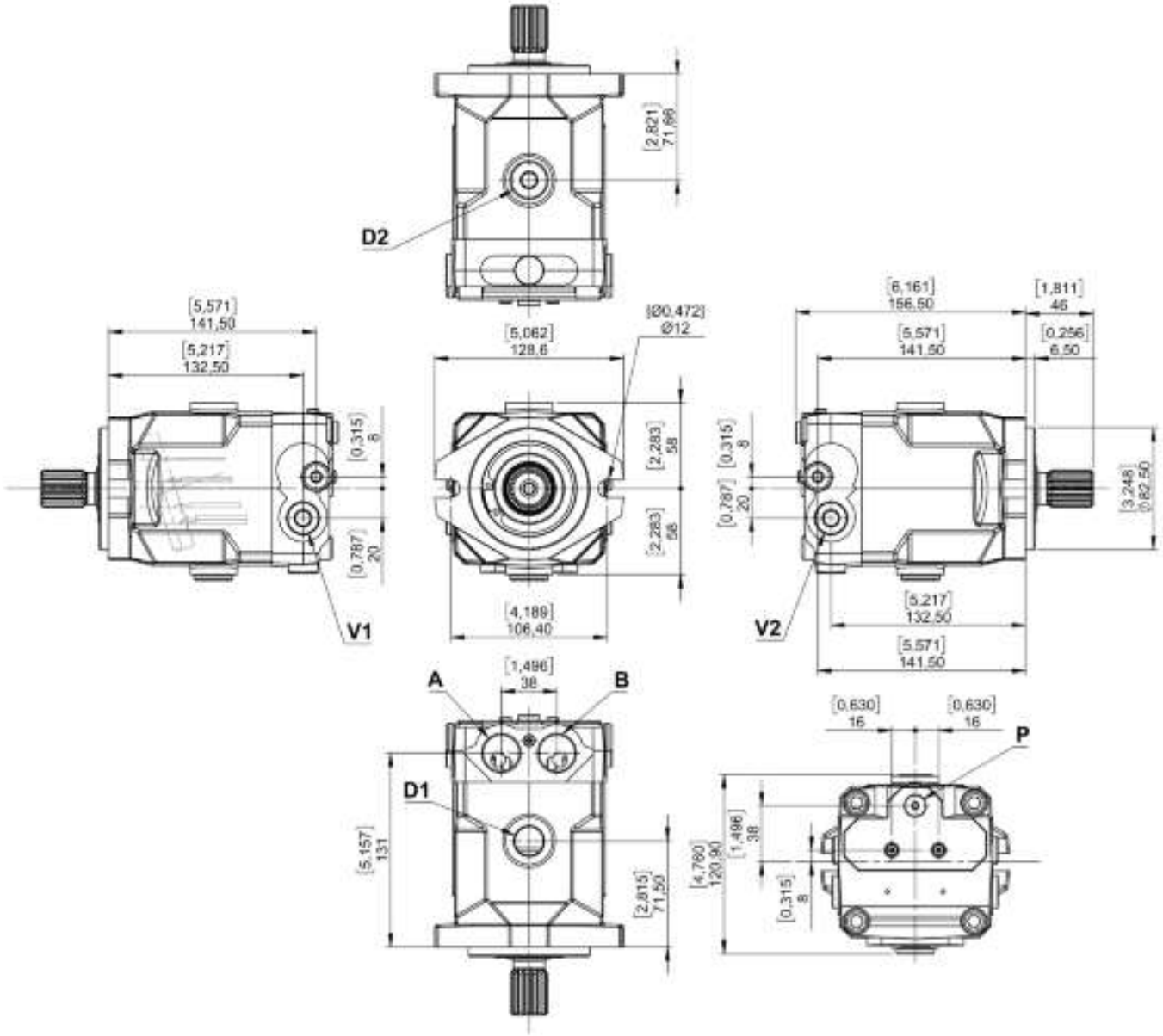
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
V1 – V2: Valvole di massima pressione / Pressure relief valves
P: Drenaggio posteriore - Rear dranage - 1/4 G

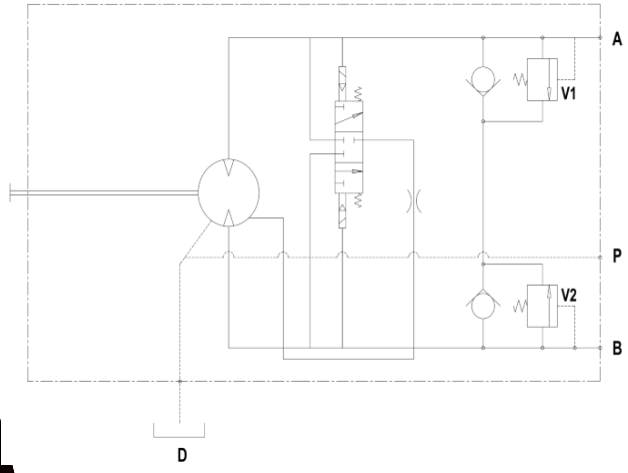
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
V1 – V2: Valvole di massima pressione / Pressure relief valves
P: Drenaggio posteriore - Rear dranage - 7/16-20 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Valvola di massima pressione + Drenaggio posteriore + Valvola di scambio/
Pressure relief valve + Rear drenage + Exchange valve

Da specificare taratura e rotazione
To specify calibration and rotation





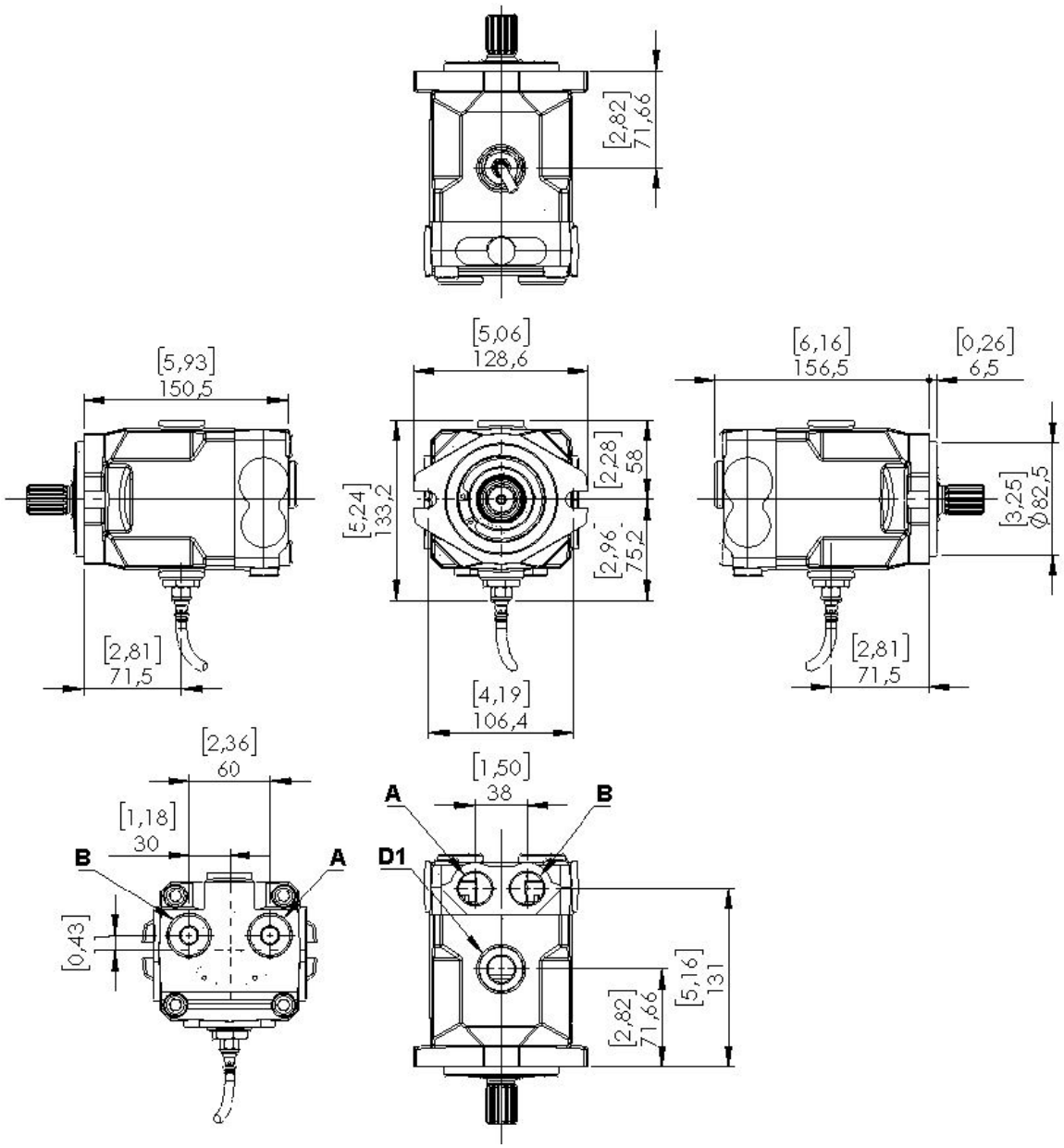
VERSIONE METRICA - METRIC VERSION
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D1 – D2: Drenaggi - Drain ports – 1/2 G
V1 – V2: Valvole di massima pressione / Pressure relief valves
P: Drenaggio posteriore - Rear dranage - 1/4 G

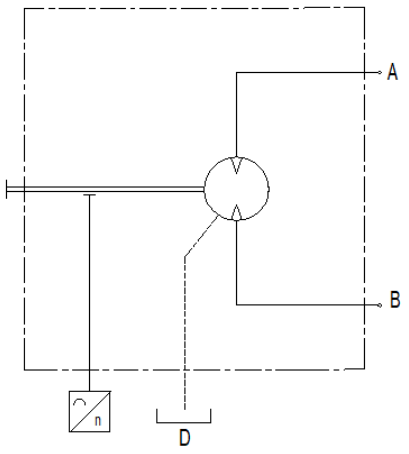
VERSIONE SAE-A - SAE-A VERSION
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D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
V1 – V2: Valvole di massima pressione / Pressure relief valves
P: Drenaggio posteriore - Rear dranage - 7/16-20 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO

ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Sensore di giri
RPM sensor

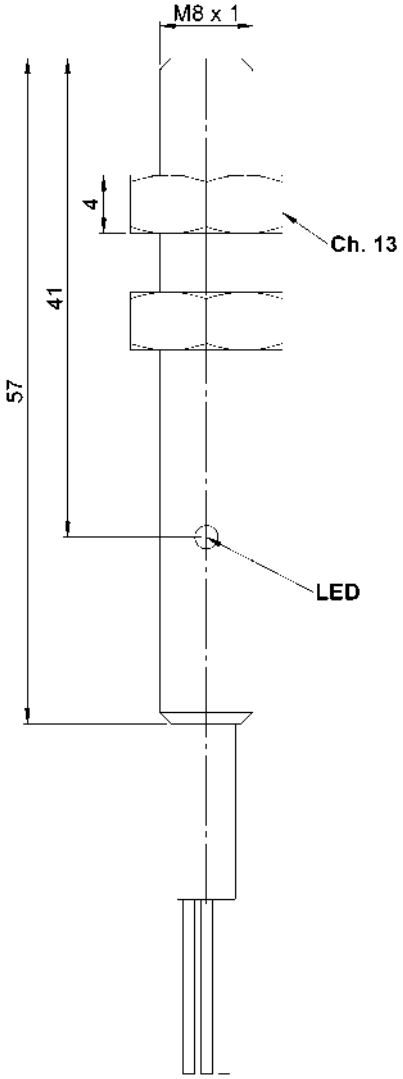




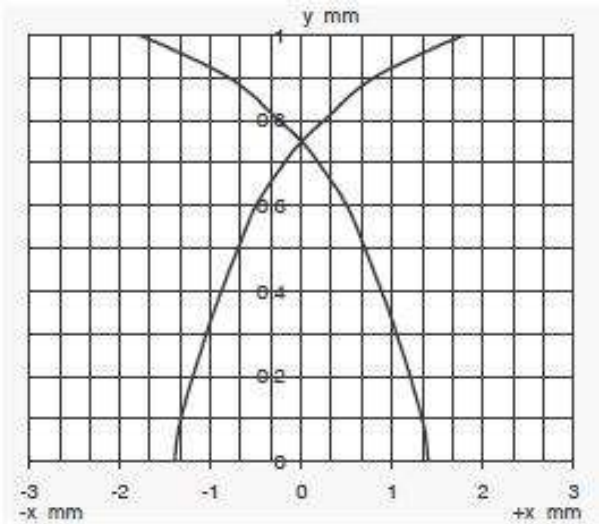
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G

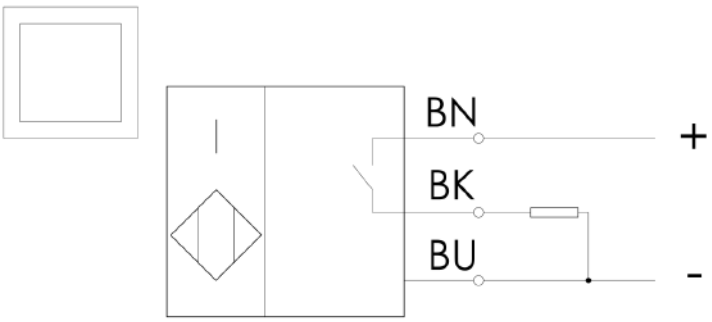
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B

SENSORE DI PROSSIMITÀ INDUTTIVO
INDUCTIVE PROXIMITY SENSOR



Voltaggio potenza fornita / Power supply voltage		
Drenaggio posteriore Rear drainage	Ue	24 V DC
Valvola di scambio Exchange Valve	Ub	10 ... 30 V DC
Valvola di massima Maximum valve	Io	10 mA
Uscite / Output		
Uscita Output		3 wire pnp 3 Leiter DC pnp
Corrente massima operativa Rated operational current	Ie	200 mA
Caduta di tensione Output voltage drop	Ud	2,5 V
Caduta di tensione Output voltage drop		0,01 mA
Tempo / Times		
Frequenza dei cicli operativi Frequency of operating cycles	f	5000 Hz
Tempo di ritardo Time delay before availability	tv	40 ms
Temperatura / Temperature		
Temperatura nominale Rated temperature	Tu	25 °C
Temperatura ambiente Ambient temperature range range	Ta	-25...+70 °C

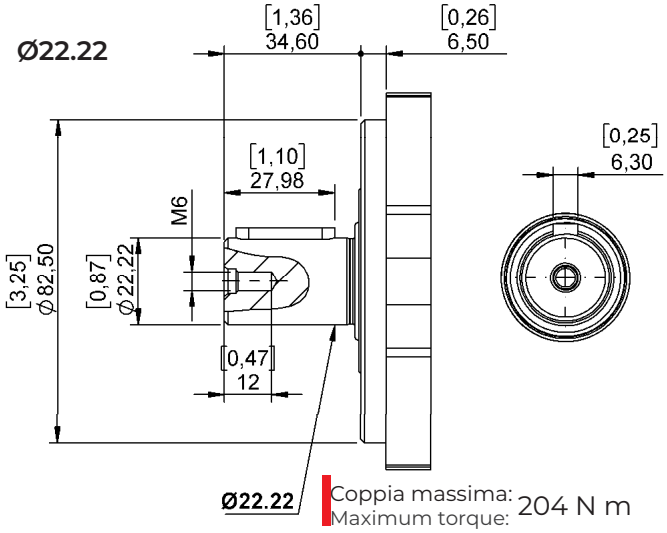




DIMENSIONI ALBERI
SHAFTS DIMENSIONS

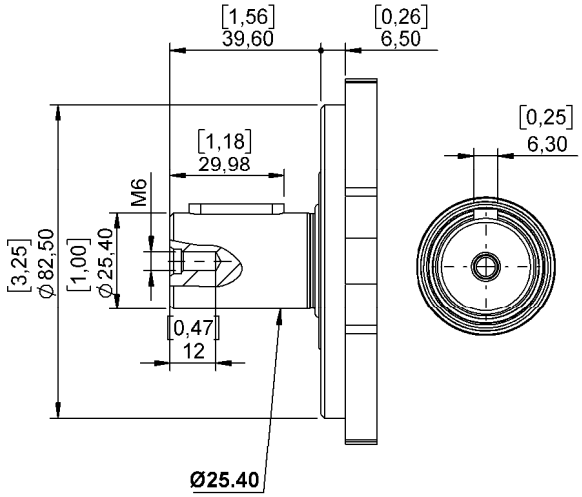
Estremità alberi
Spline shaft + Round shaft

Ø22.22



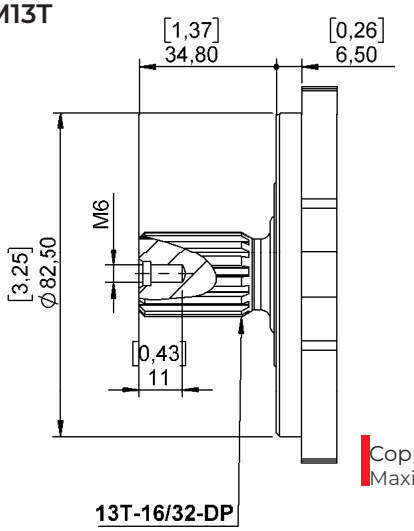
Coppia massima: 204 N m
Maximum torque:

Ø25.40



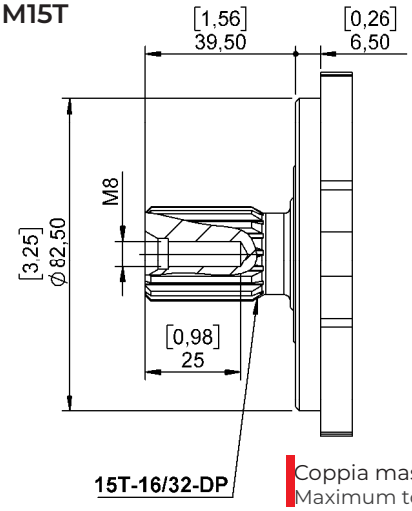
Coppia massima: 233 N m
Maximum torque:

MZ13 / M13T



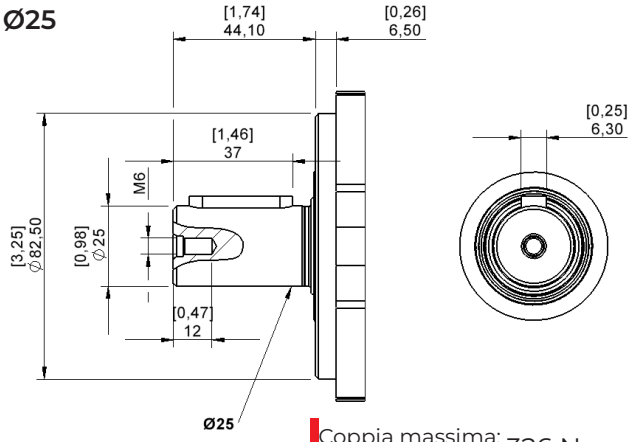
Coppia massima: 289 N m
Maximum torque:

MZ15 / M15T



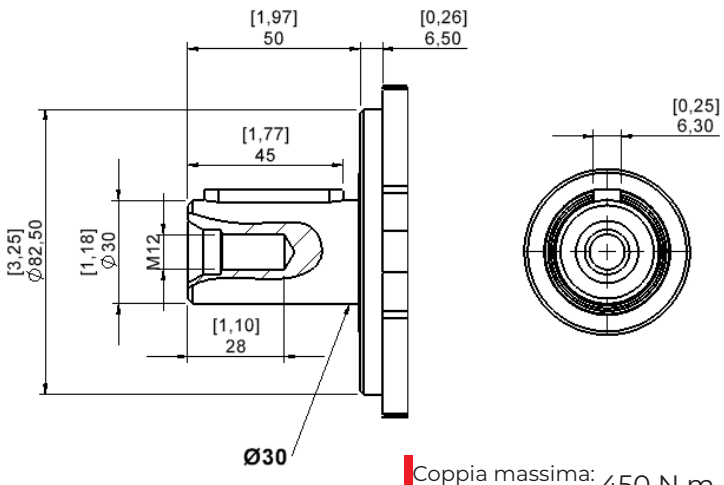
Coppia massima: 468 N m
Maximum torque:

Ø25



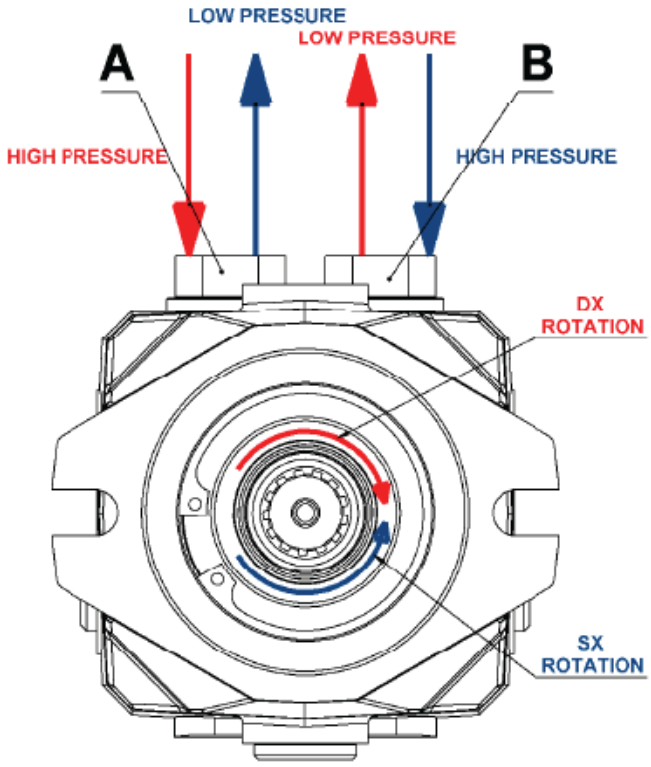
Coppia massima: 326 N m
Maximum torque:

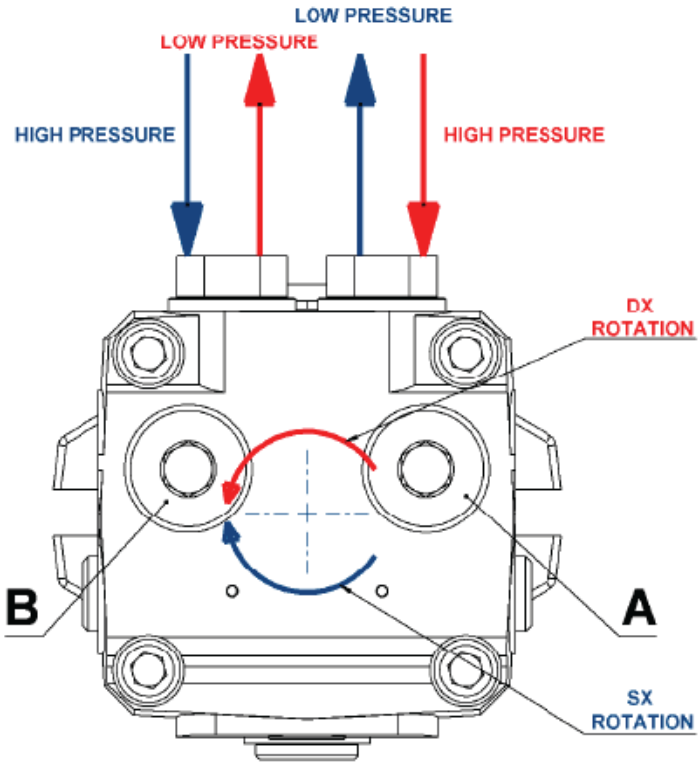
Ø30



Coppia massima: 450 N m
Maximum torque:

SENSO DI ROTAZIONE DEL MOTORE
DIRECTION OF ROTATION

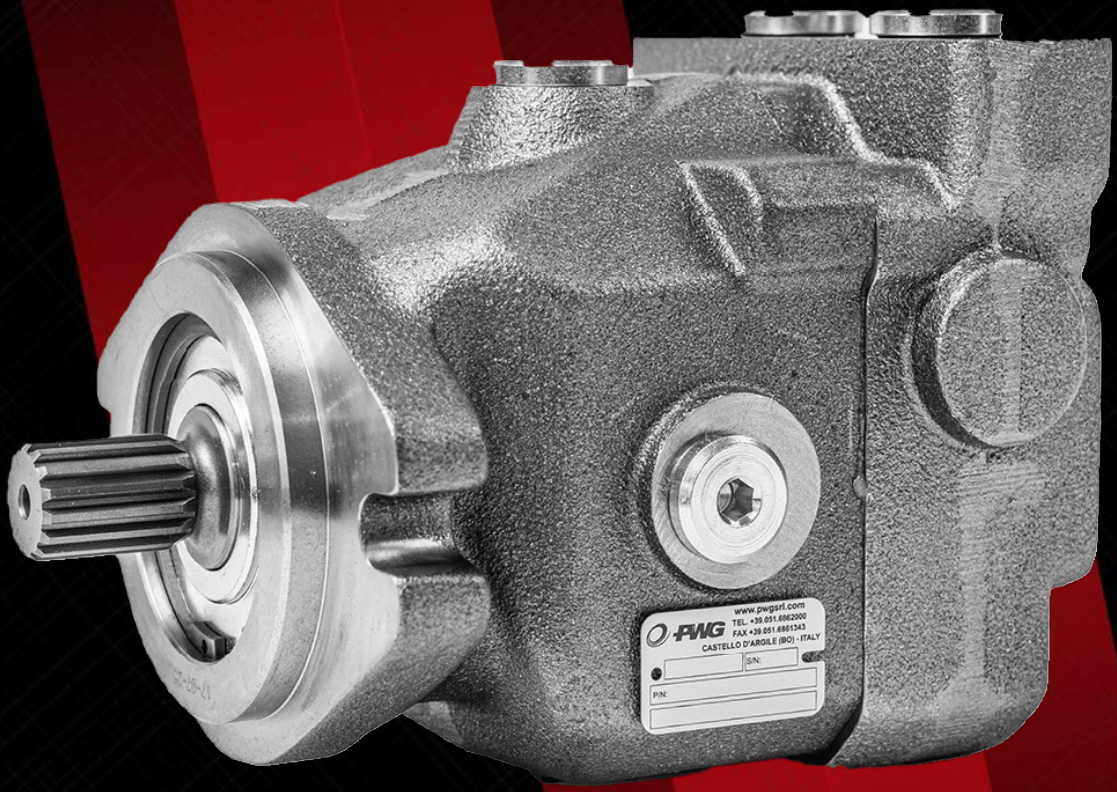




Indicare la taratura richiesta (a scelta del cliente) e specificare la configurazione delle valvole di massima: una o due. Nel caso di una sola valvola di massima, precisare il ramo di installazione (A oppure B).

Specify the required setting (as selected by the customer) and indicate the configuration of the maximum relief valves: one or two. In case of a single relief valve, specify the installation branch (A or B).

PWG S.r.l. - via E. Mattei, 8 - Castello d'Argile, Bo - ITALY - +39 051.6862000 · www.pwgsrl.com



PISTON MOTORS

MF

46-64

a cilindrata fissa

CARATTERISTICHE TECNICHE

TECHNICAL FEATURES

I motori a pistoni assiali a cilindrata fissa sono a piatto inclinato e possono operare sia in circuito aperto che in circuito chiuso. L'accurata scelta dei materiali, l'impiego del blocco cilindri in acciaio con boccole riportate, consentono ai motori PWG S.r.l. di raggiungere elevate prestazioni in termini di regimi e pressioni di lavoro massimo..

Le loro principali caratteristiche sono:

- Elevato rapporto potenza/peso
- Ottimi rendimenti volumetrici e meccanici
- Lunga durata
- Ingombri limita
- La valvola di scambio viene montata a richiesta

The fixed-displacement axial piston motors feature a swashplatesystem and may operate in either closed or open circuit. Proper selection of materials and the use of steel cylinder blocks with inserted bushings guarantee the hight performance of the PWG S.r.l. motors, in terms of max. speed and working pressure.

The main feature of PWG S.r.l. motors include:

- Exceptionally high power/weight ratio
- Excellent volumetric and mechanical efficiency
- Long life
- Compact design
- Exchange valve filed as optional.

SERIE		MF 46-64
Cilindrata Displacement	cc/giro cc/rev	46-64
Regime di rotazione max continuo Max rotation speed continuos	min^{-1}	3600
Regime di rotazione max intermittente Max rotation speed intermilent	min^{-1}	3800
Regime di rotazione min Min rotation speed	min^{-1}	100
Pressione nominale Rated pressure	bar (psi)	300 (4350)
Pressione di punta Peak pressure	bar (psi)	400 (5800)
Pressione massima in carcassa Max case pressure	bar (psi)	1,5 (21.75)
Massima temperatura continua olio Max oil continuous temperature	°C	80
Classe di filtrazione ISO ISO filtration class		ISO 18/16/13, NAS 8
Viscosità olio ottimale Optimized oil viscosity	mm^2/s	15 – 35
Massa Weight	Kg	18
Momento polare di inerzia Inertial mess	$N \cdot m \cdot s^2$	60 x 10 - 59 x 10

PWG S.r.l. - via E. Mattei, 8 - Castello d'Argile, Bo - ITALY - +39 051.6862000 · www.pwgsrl.com

CODICE DI ORDINAZIONE
ORDERING CODE

MF 64 - 50	1	B	3	T		

Serie cilindrata / Series displacement

MF 46	46 CC / GIRO - 46 CC / REV
MF 64	64 CC / GIRO - 64 CC / REV

NOTA : Per limitazioni di cilindrata diverse, contattare PWG Srl.
NOTE: For different displacement limitations, contact PWG Srl.

Connessioni / Ports / Anschlusse

1	Utilizzi A - B posteriori Users A - B rear
2	Utilizzi laterali accoppiati Users A - B coupled sideways
3	Utilizzi A - B laterali - contrapposti Users A - B opposite sideways

Senso di rotazione / Direction of rotation

B	Bidirezionale (Std) - Bidirectional (Std)

Tipo di albero / Shaft end

1	Cilindrico Ø30 Round shaft Ø30
3	Scanalato M Z15 -16/32-D Splined shaft Z 15-16/32-DP
5	Scanalato M Z13 -16/32-DP Splined shaft Z13-16/32-DP
7	Scanalato M Z21 -16/32-DP Splined shaft Z21-16/32-DP

Esecuzioni speciali
Special versions

Opzioni / Option

P	Drenaggio posteriore Rear drainage
V	Valvola di scambio Exchange Valve
M	Valvola di massima * Exchange Valve *
Q	Valvola di massima + Valvola di scambio * Pressure relief valve + Exchange Valve *
R	Valvola di massima + Drenaggio posteriore * Pressure relief valve + Rear drenage *
N	Valvola di massima + Valvola di scambio + Drenaggio posteriore * Pressure relief valve + Exchange Valve + Rear drenage *
S	Sensore di giri Exchange Valve

* NOTA:Per specifiche sulle tarature delle valvole di massima contattare PWG Srl
* For details on pressure reliefe valve's calibration, contact PWG Srl

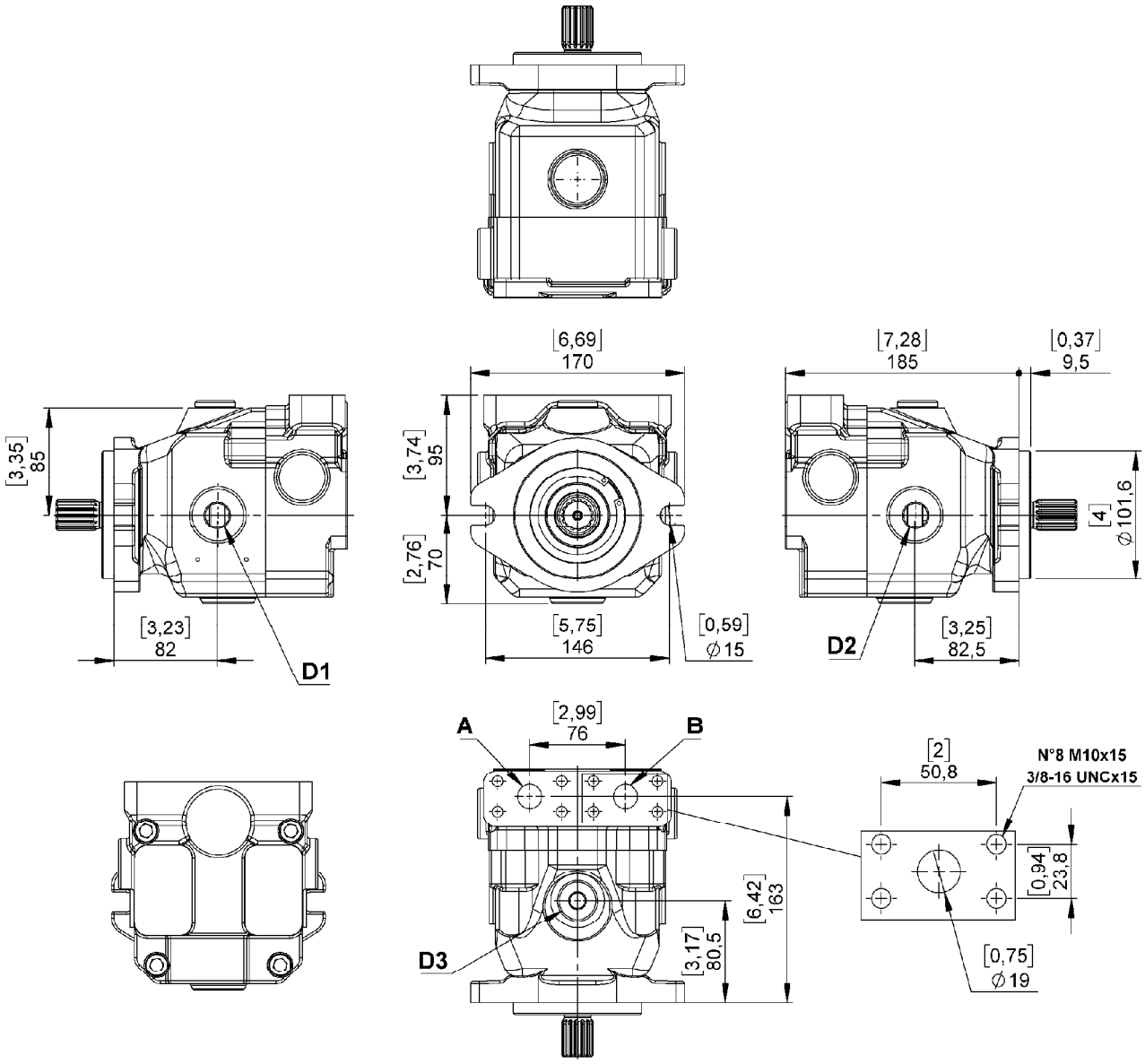
Versione attacchi / Ports

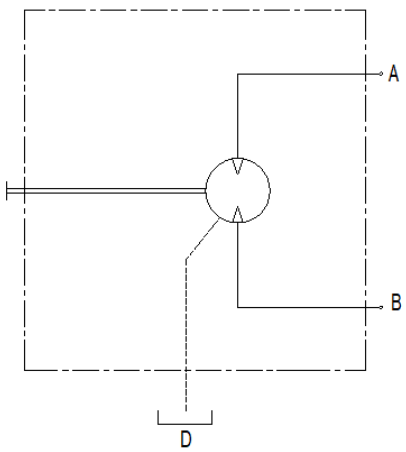
G	Flange 3/4" SAE-A 6000 3/4" SAE-A 6000 Flan
U	SAE (Filetti UNF) SAE (UNF Threads)
T	Porte A-B filelate 3/4" GAS Ports A-B thread 3/4" GAS

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ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B Laterali + SAE-A 6000
Users A - B Sideways + SAE-A 6000 Flange

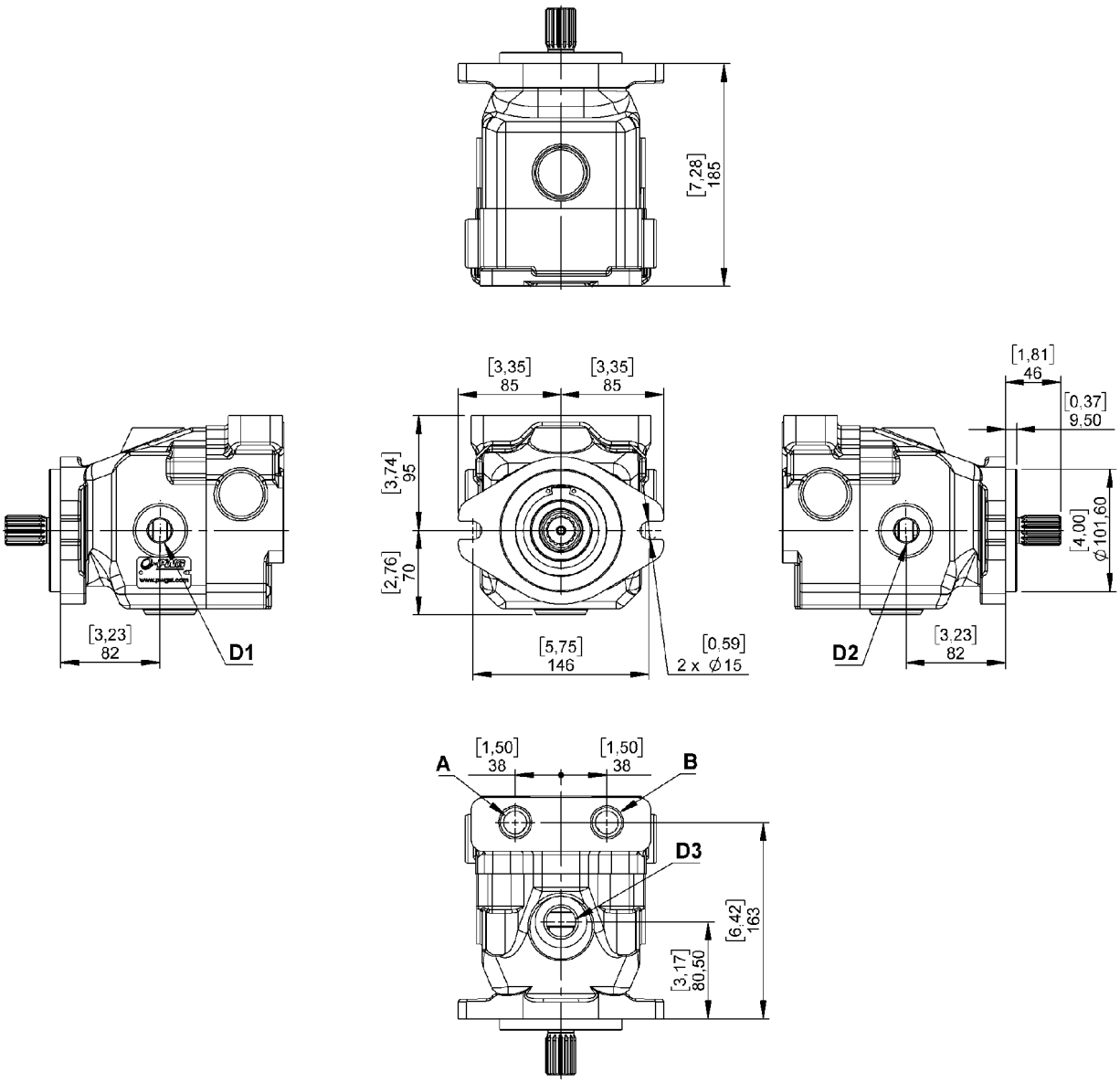


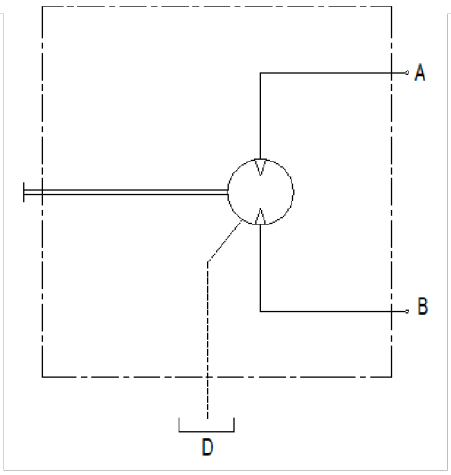


VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G

DIMENSIONI MOTORE
MOTOR DIMENSIONS

Utilizzi A - B Laterali + 3/4" GAS
Users A - B Sideways + 3/4" GAS



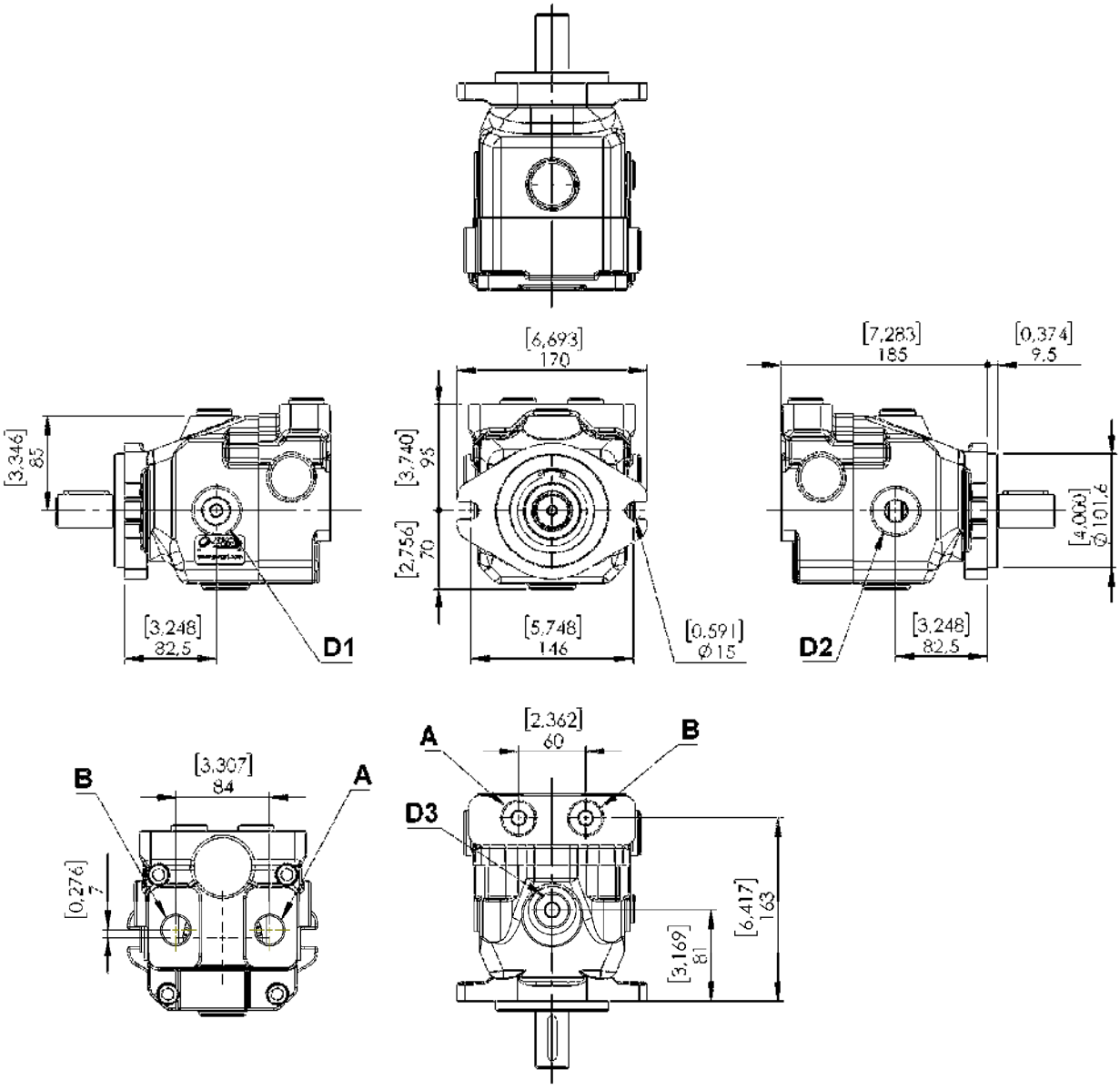


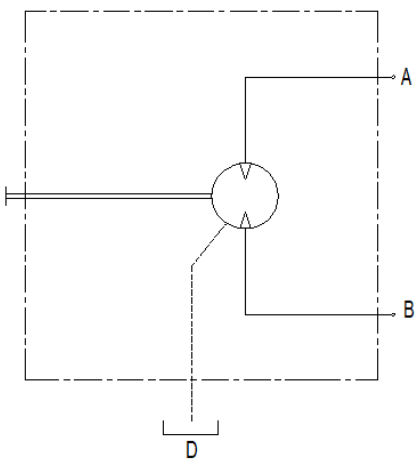
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B

DIMENSIONI MOTORE
MOTOR DIMENSIONS

Utilizzi A - B Laterali + Posteriori + 3/4" GAS (VERSIONE IBRIDA)
Users A - B Sideways + Rear + 3/4" GAS (HYBRID VERSION)



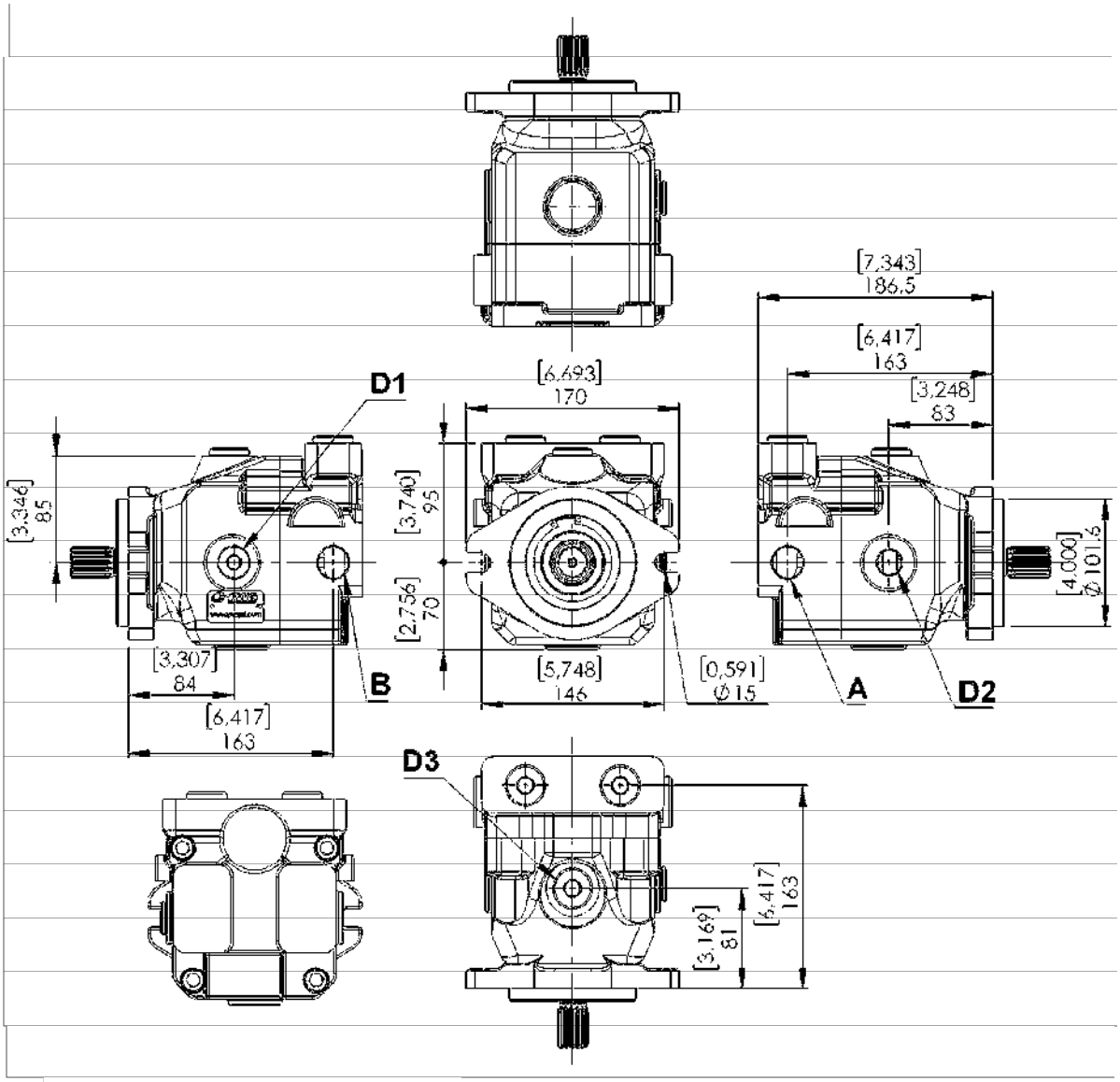


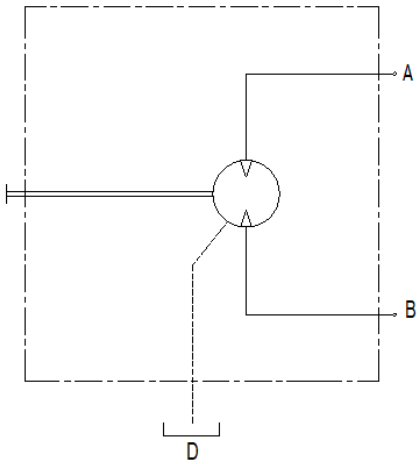
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B Laterali contrapposti 3/4" GAS
Users A - B opposite sideways 3/4" GAS



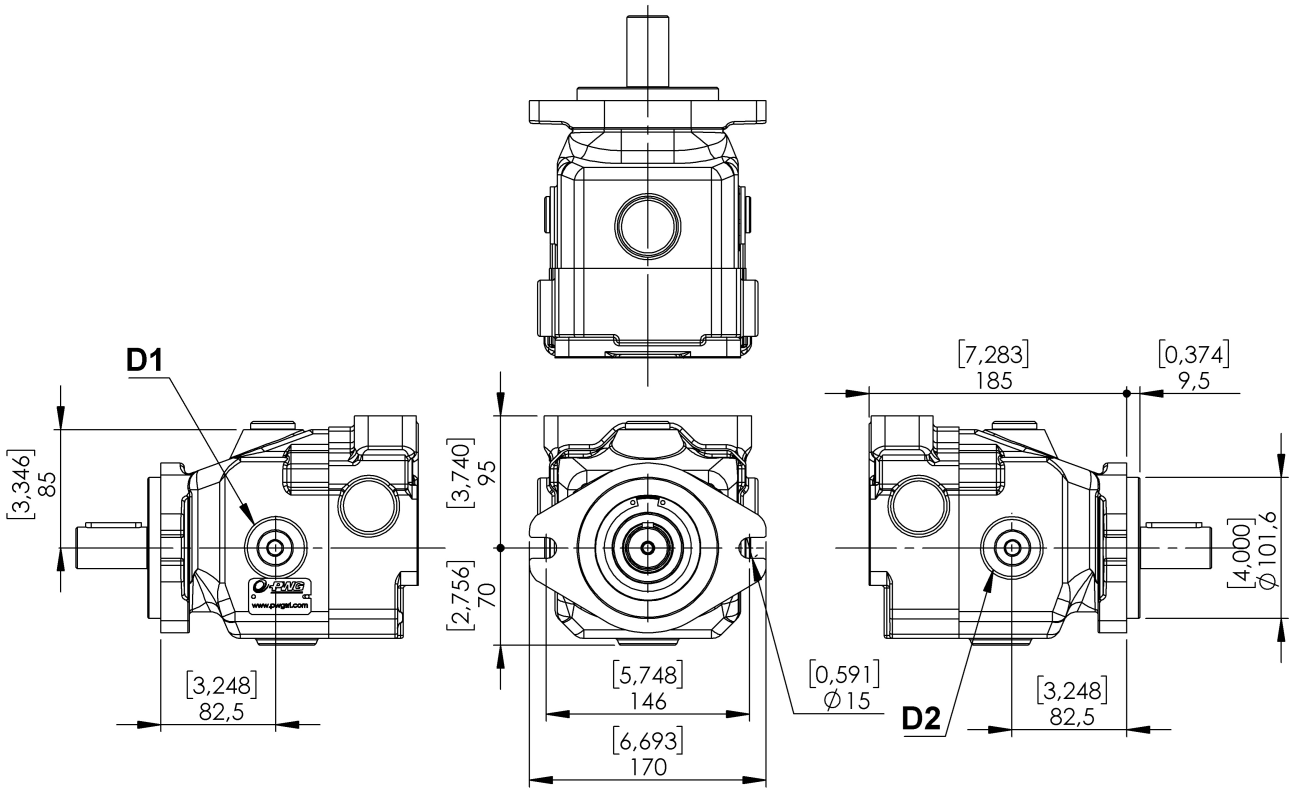


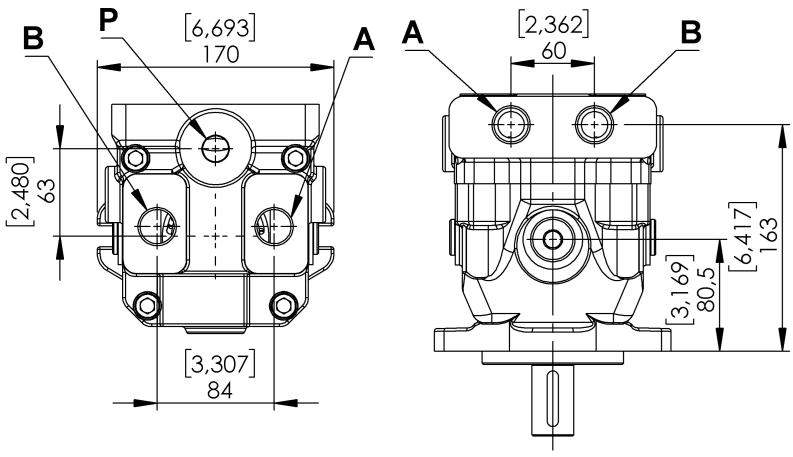
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G

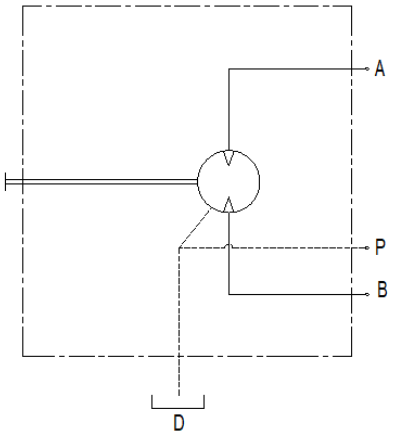
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Drenaggio posteriore
Rear drenage





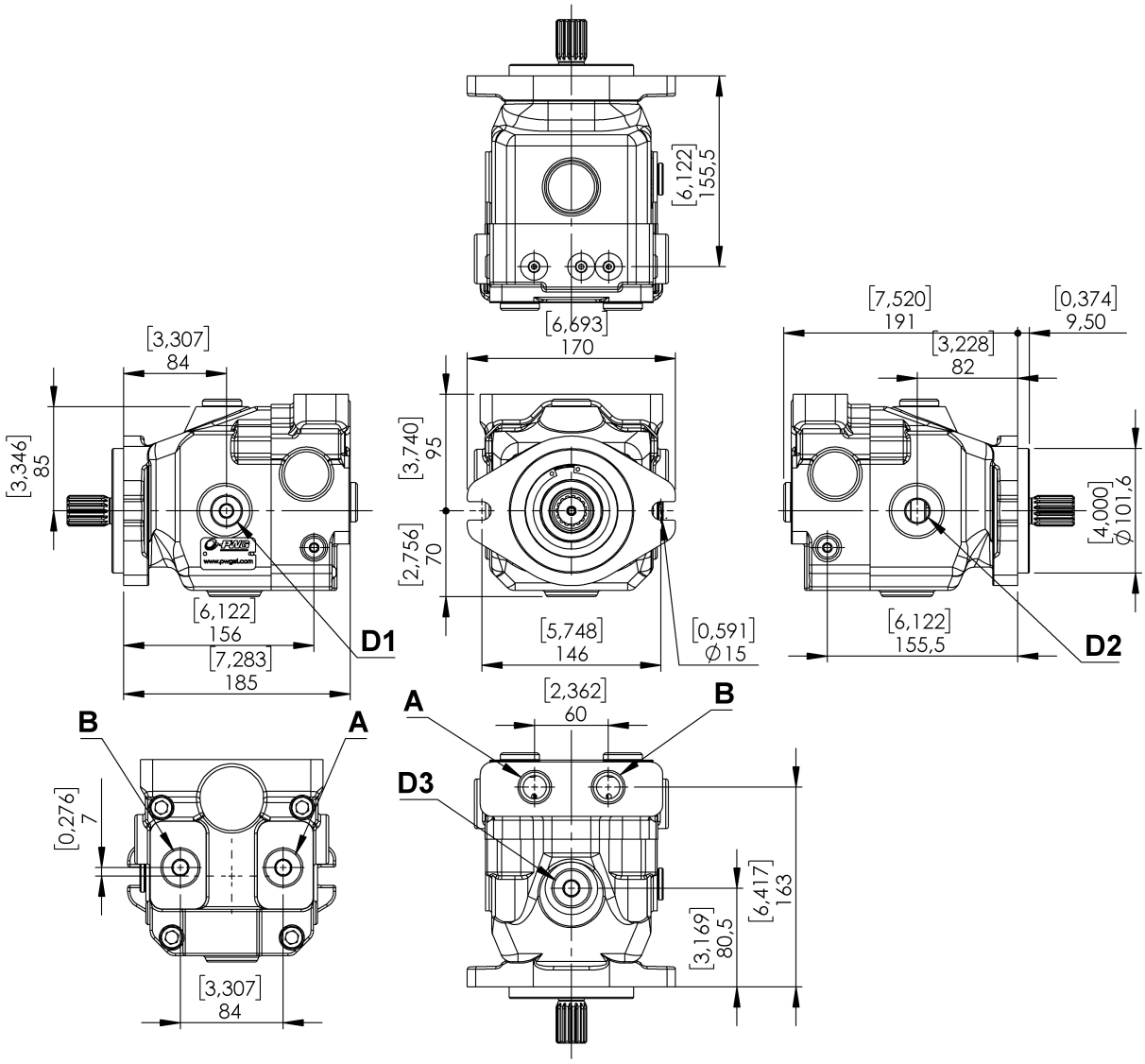


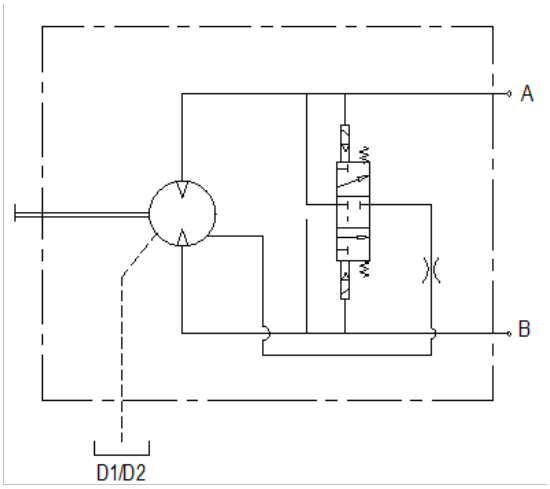
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
P: Attacchi / Ports - 1/2 G (per Drenaggio Posteriore)

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
P: Attacchi / Ports - 3/4-16 UNF-2B (Rear Drainage)

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B Laterali + Posteriori + Valvola di scambio (5-7 l/min) + 3/4" GAS (VERSIONE IBRIDA)
Sideways A - B Pressure ports + Rear pressure ports + Exchange valve (5/7 l/min) + 3/4" GAS (HYBRID VERSION)





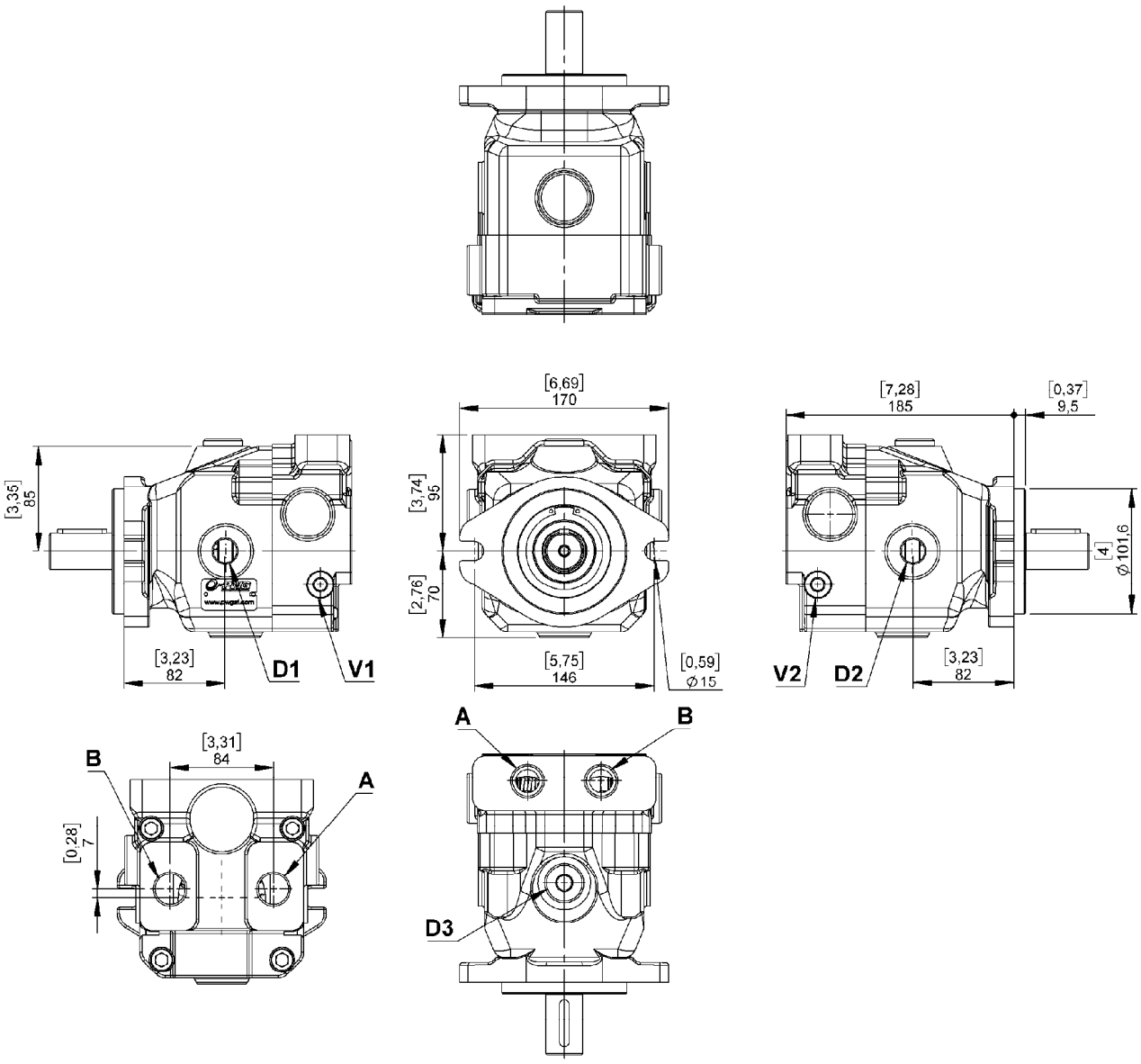
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G

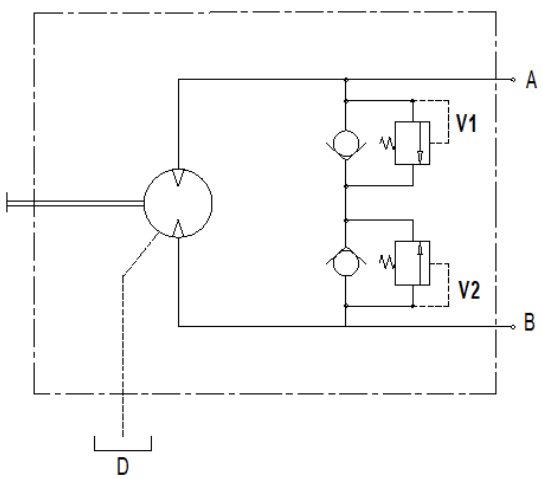
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B Laterali + Posteriori + Valvole di massima pressione + 3/4" GAS (VERSIONE IBRIDA)
Users A - B Sideways + Rear + Pressure relief valves + 3/4" GAS (HYBRID VERSION)

Da specificare taratura e rotazione
To specify calibration and rotation





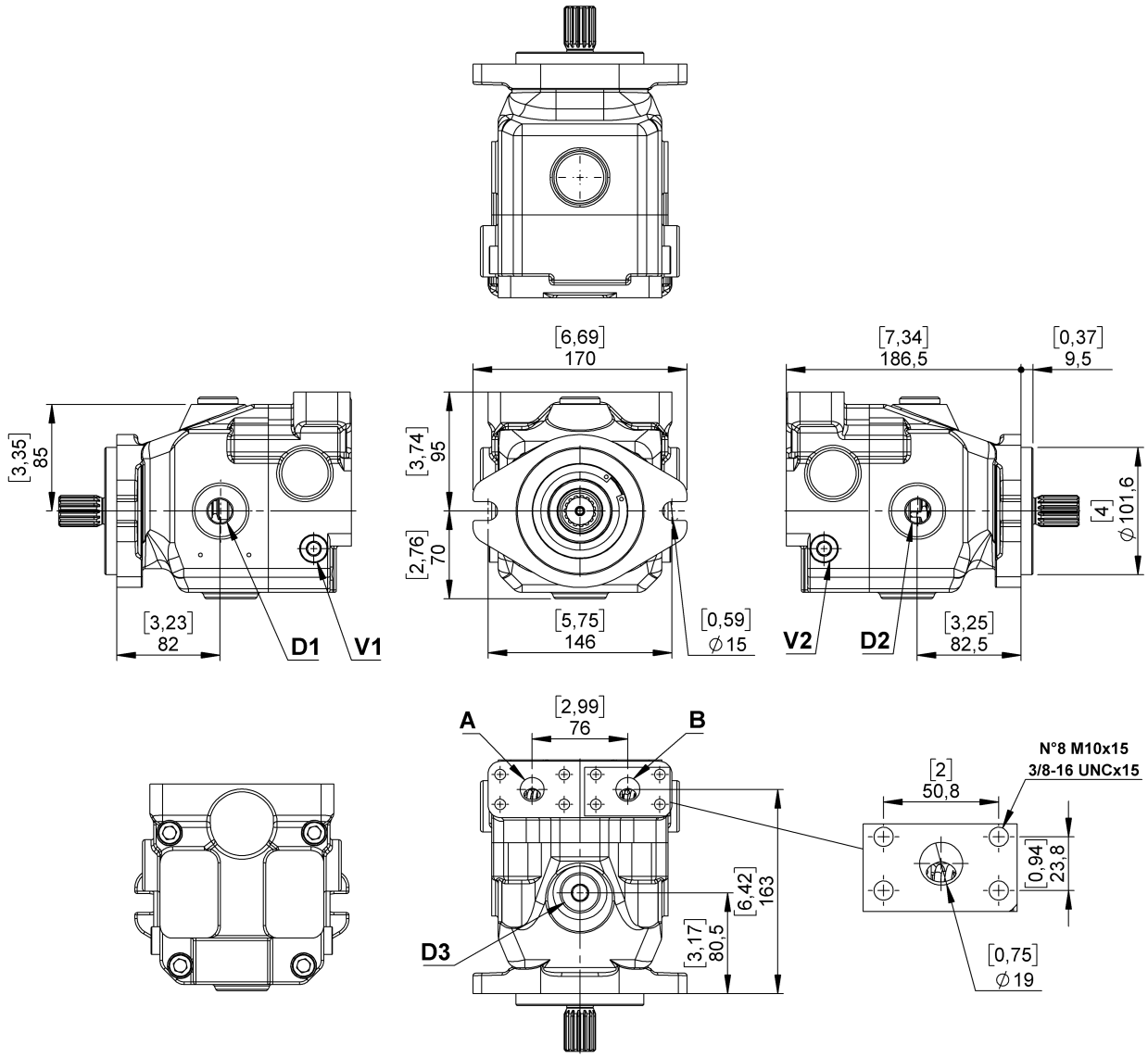
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G
V1 – V2: Valvole di massima pressione / Pressure relief valves

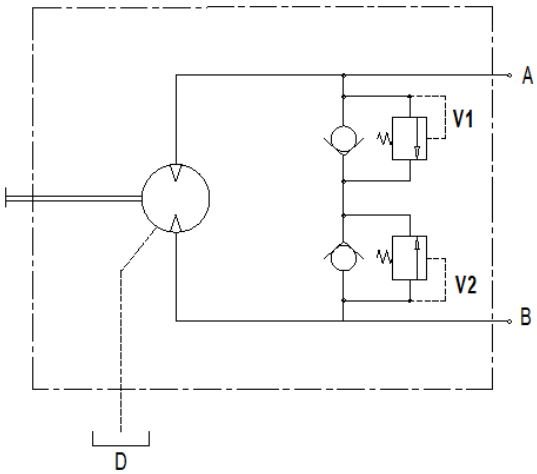
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B Laterali + Flange SAE-A 6000 + Valvole di massima pressione
Users A - B Sideways + SAE-A 6000 Flange + Pressure relief valves

Da specificare taratura e rotazione
To specify calibration and rotation

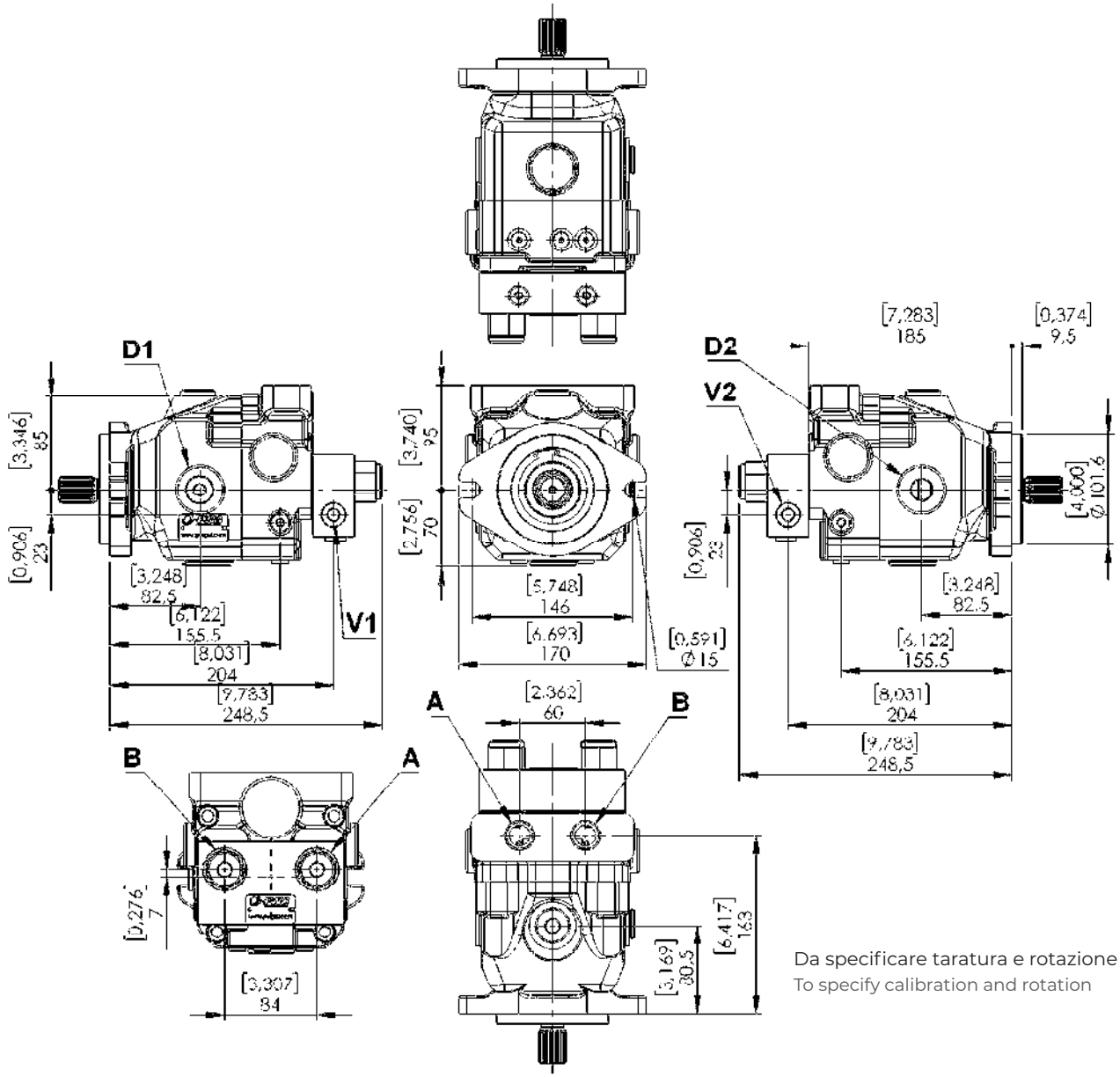




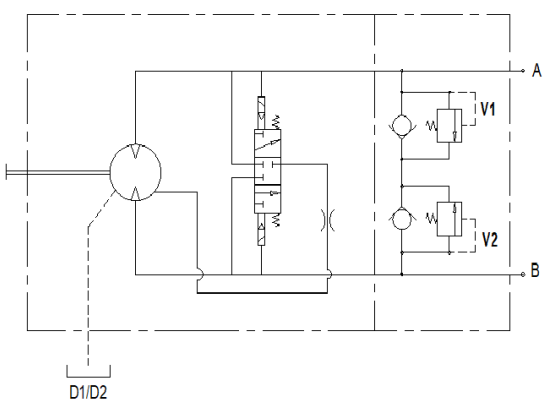
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G
V1 – V2: Valvole di massima pressione / Pressure relief valves

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B Laterali + Posteriori + Valvole di massima pressione + Valvola di scambio
Sideways A - B Pressure ports + Rear pressure ports + Pressure relief valve + Exchange valve (5-7 l/min).



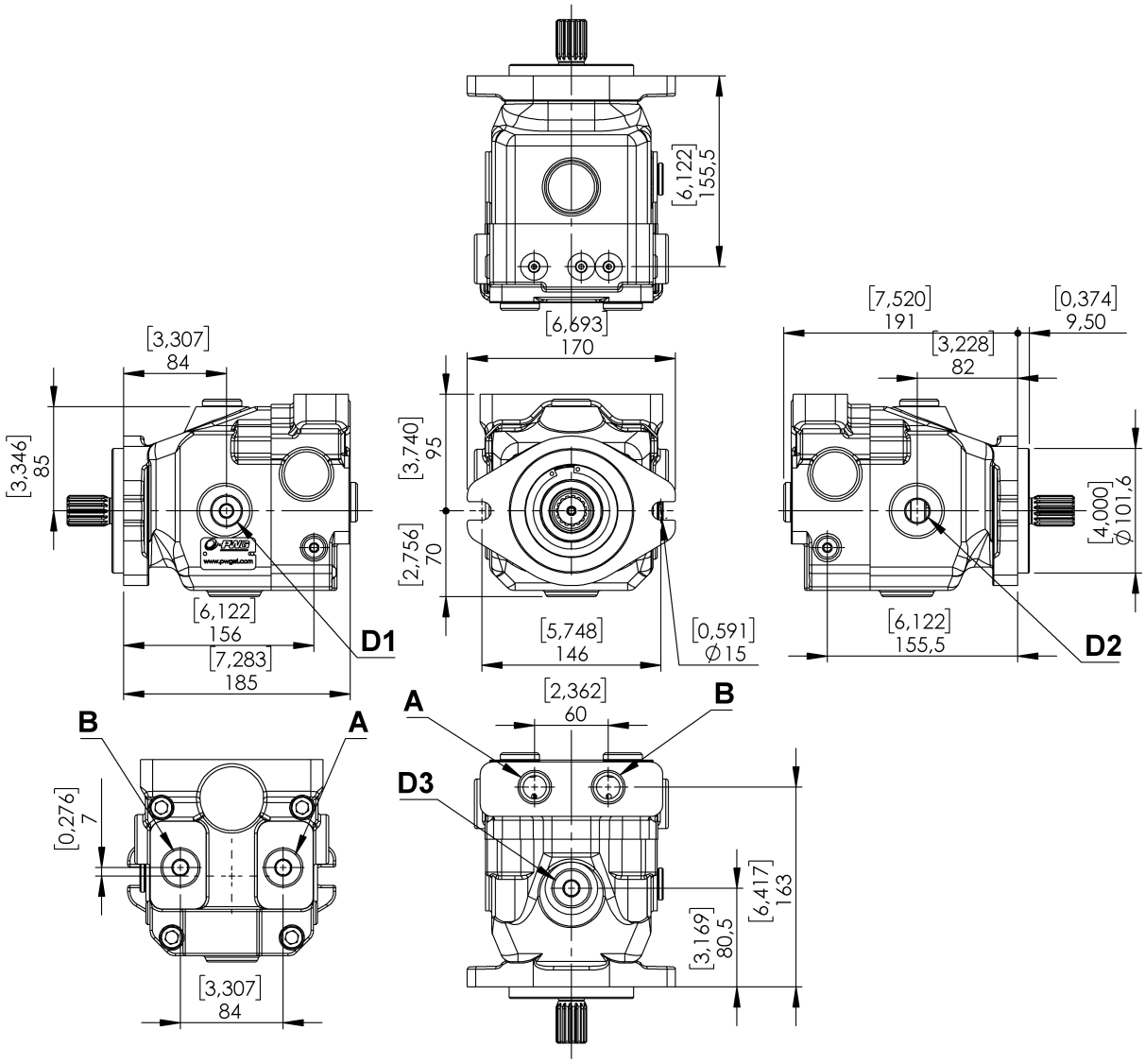
Da specificare taratura e rotazione
To specify calibration and rotation

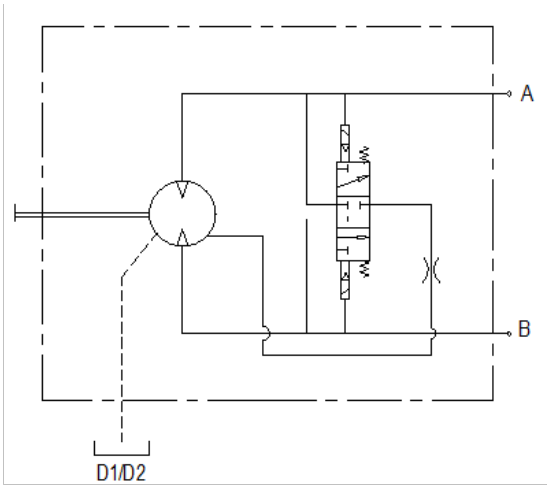


VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G
V1 – V2: Valvole di massima pressione / Pressure relief valve
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B
V1 – V2: Valvole di massima pressione / Pressure relief valves

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Utilizzi A - B laterali accoppiati + Valvola di scambio (5-7 l/min) + Valvole di massima pressione + 3/4" GAS
3/4" GAS A - B Sideways coupled pressure ports + Exchange valve (5/7 l/min) +





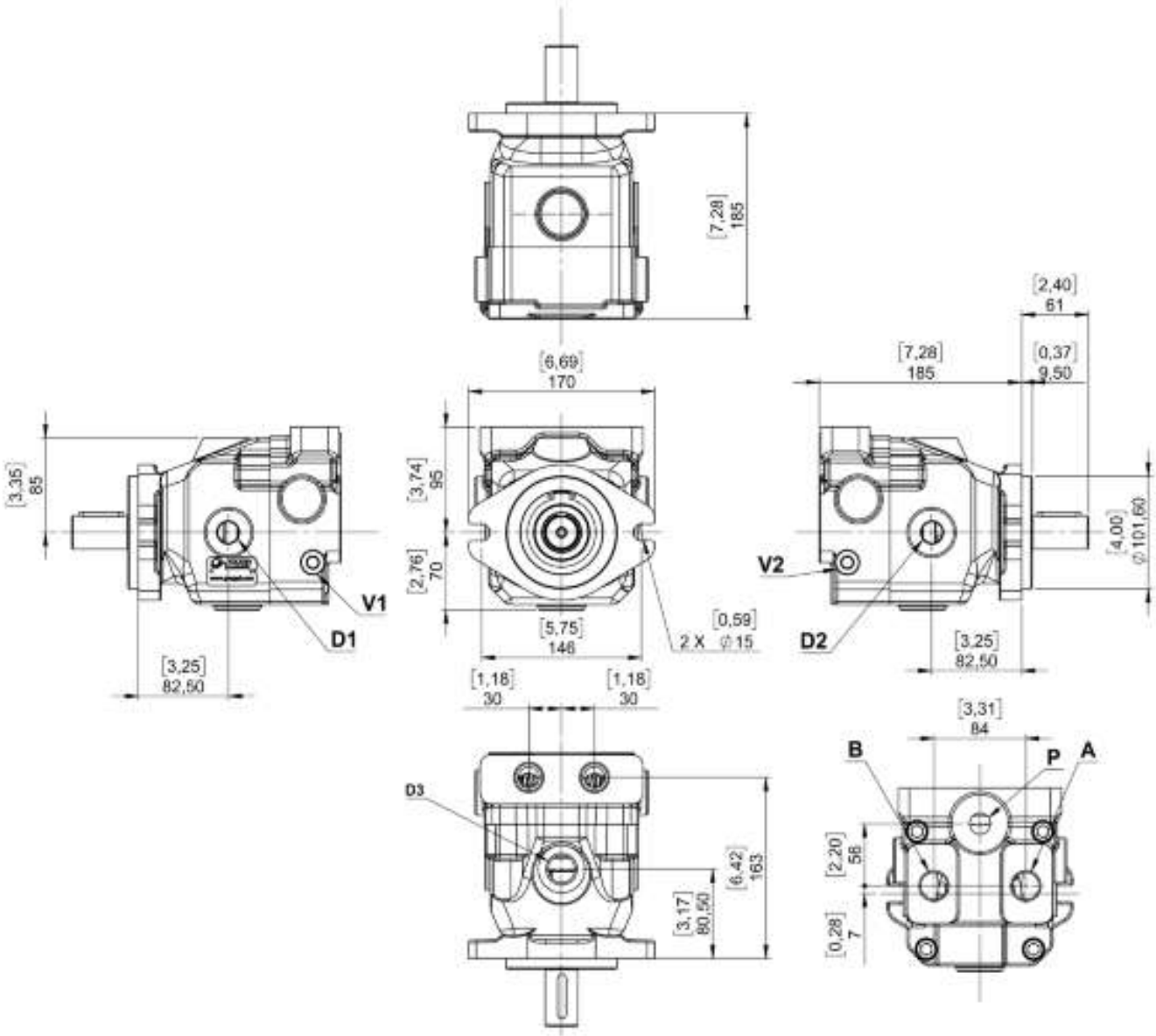
Da specificare taratura e rotazione
To specify calibration and rotation

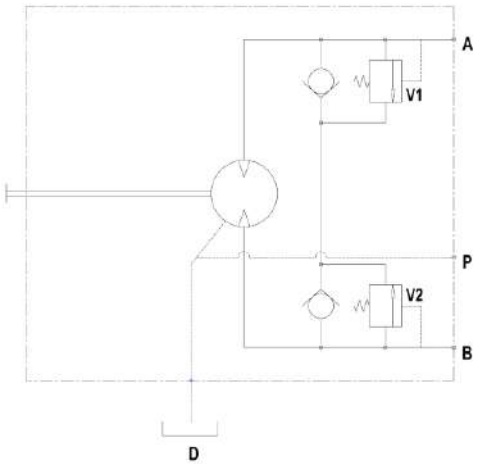
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2 – D3: Drenaggi - Drain ports – 1/2 G
D3: Drenaggio - Drain port – 3/4 G
V1 – V2: Valvole di massima pressione / Pressure relief valves
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B
V1 – V2: Valvole di massima pressione / Pressure relief valves

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Drenaggio posteriore + Valvole di massima
Rear drenage + Pressure reliefe valve

Da specificare taratura e rotazione
To specify calibration and rotation



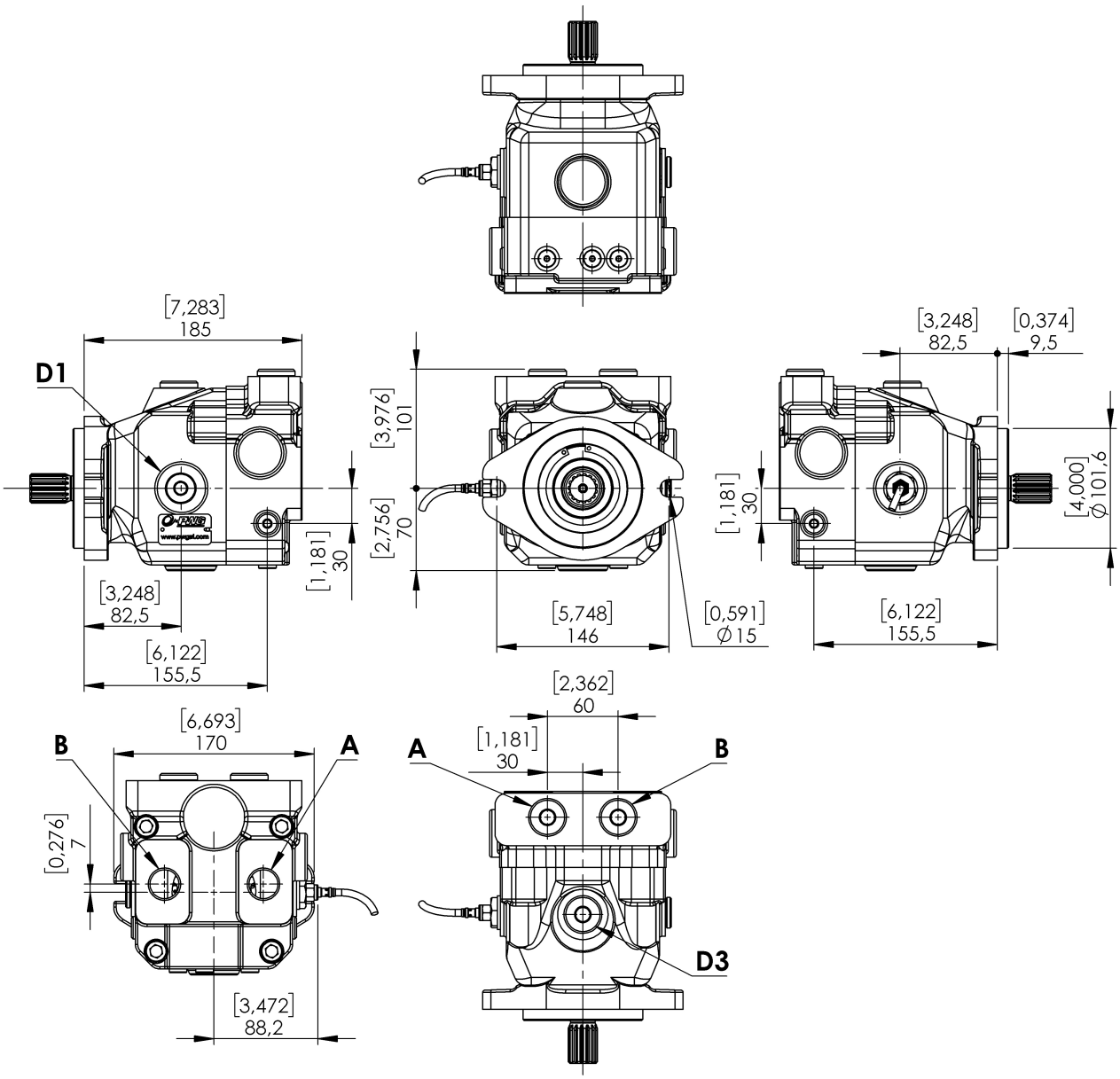


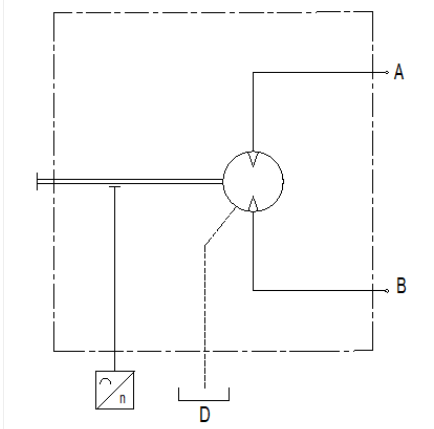
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
P: Attacchi / Ports - 1/2 G (per Drenaggio Posteriore)
V1 – V2: Valvole di massima pressione / Pressure

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
P: Attacchi / Ports - 3/4-16 UNF-2B (Rear Drainage)
V1 – V2: Valvole di massima pressione / Pressure relief valves

ACCESSORI E DIMENSIONI PRESE DI MOTO
ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Sensore di giri
RPM sensor

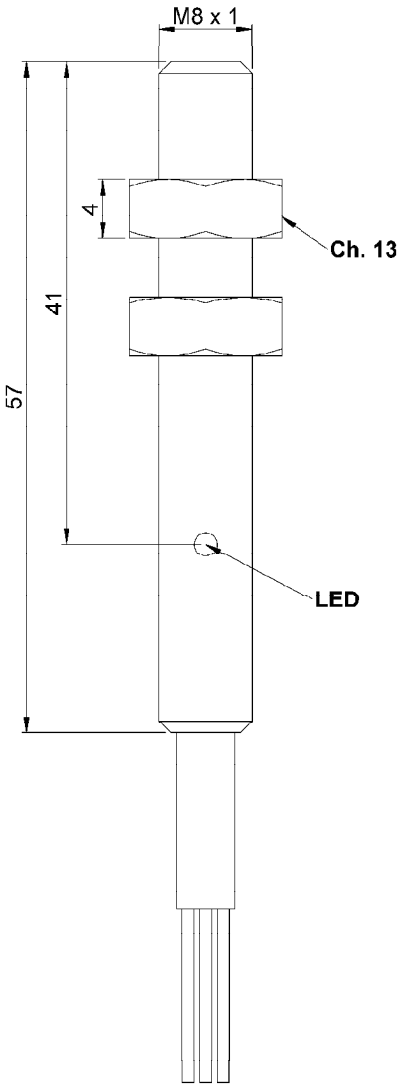




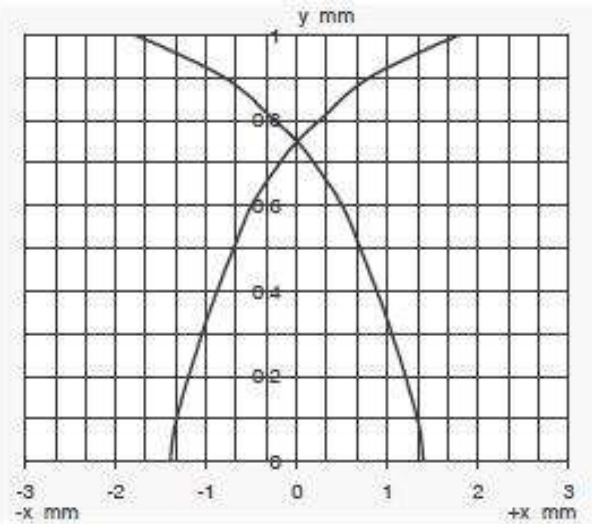
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1: Drenaggio - Drain port – 1/2 G
D3: Drenaggio - Drain port – 3/4 G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1: Drenaggio - Drain port - 3/4-16 UNF-2B
D3: Drenaggio - Drain port – 1 1/16-12 UNF-2B

SENSORE DI PROSSIMITÀ INDUTTIVO
INDUCTIVE PROXIMITY SENSOR



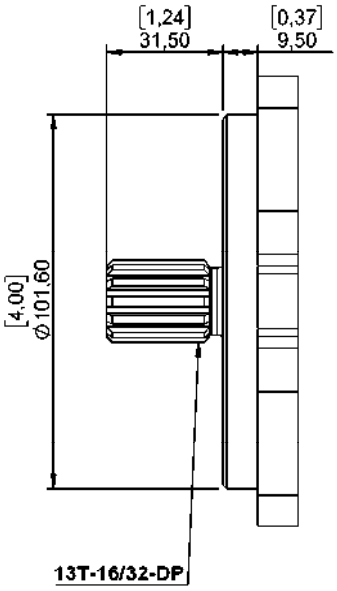
Voltaggio potenza fornita / Power supply voltage		
Massima tensione operativa Rated operation voltage	Ue	24 V DC
Intervalli nelle tensioni operative Operatng voltage range	Ub	10 ... 60 V DC
Corrente di alimentazione a vuoto No-load supply current	Io	10 mA
Uscite / Output		
Uscita Output		3 wire pnp 3 Leiter DC pnp
Corrente massima operativa Rated operational current	Ie	200 mA
Caduta di tensione Output voltage drop	Ud	2,5 V
Corrente residua Off-state current		0,01 mA
Tempo / Times		
Frequenza dei cicli operativi Frequency of operating cycles	f	5000 Hz
Tempo di ritardo Time delay before availability	tv	40 ms
Temperatura / Temperature		
Temperatura nominale Rated temperature	Tu	25 °C
Temperatura ambiente Ambient temperature range range	Ta	-25...+70 °C



DIMENSIONI ALBERI
SHAFTS DIMENSIONS

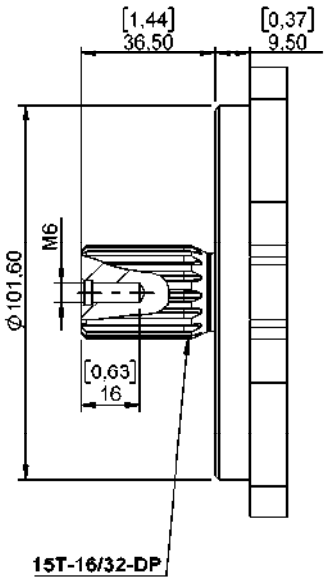
Estremità alberi
Spline shaft + Round shaft

MZ13 / T13M



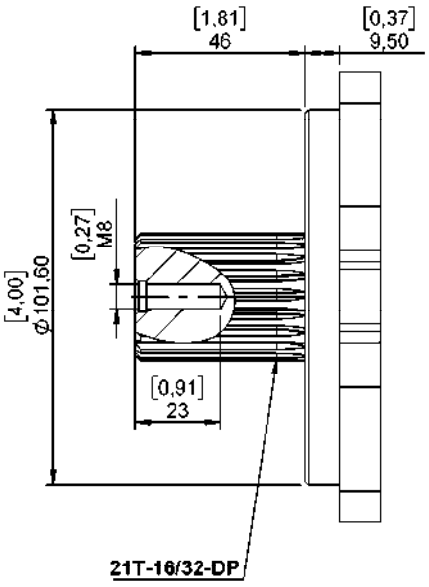
Coppia massima:
Maximum torque: 289 N m

MZ15 / T15M



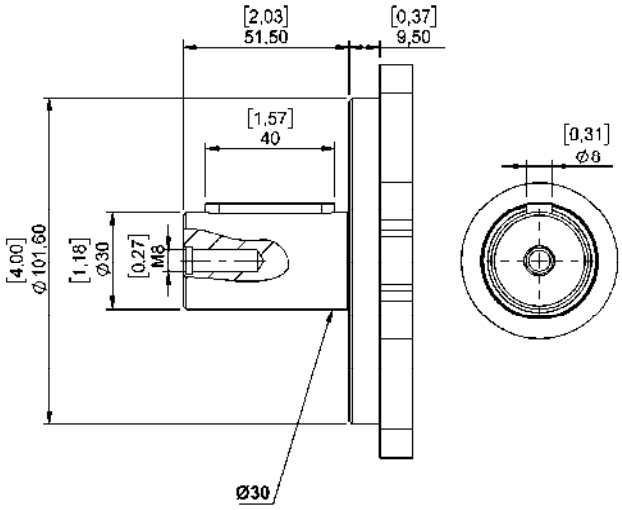
Coppia massima:
Maximum torque: 468 N m

MZ21 / T21M



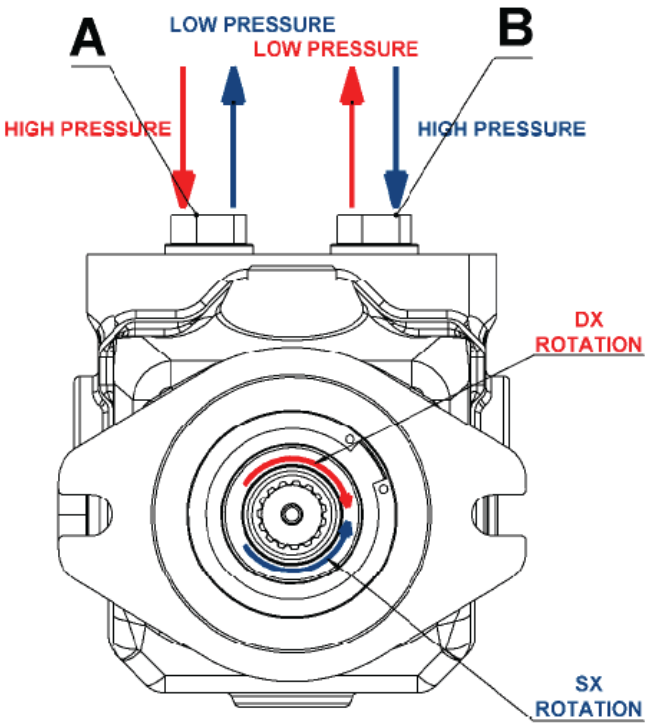
Coppia massima:
Maximum torque: 1693 N m

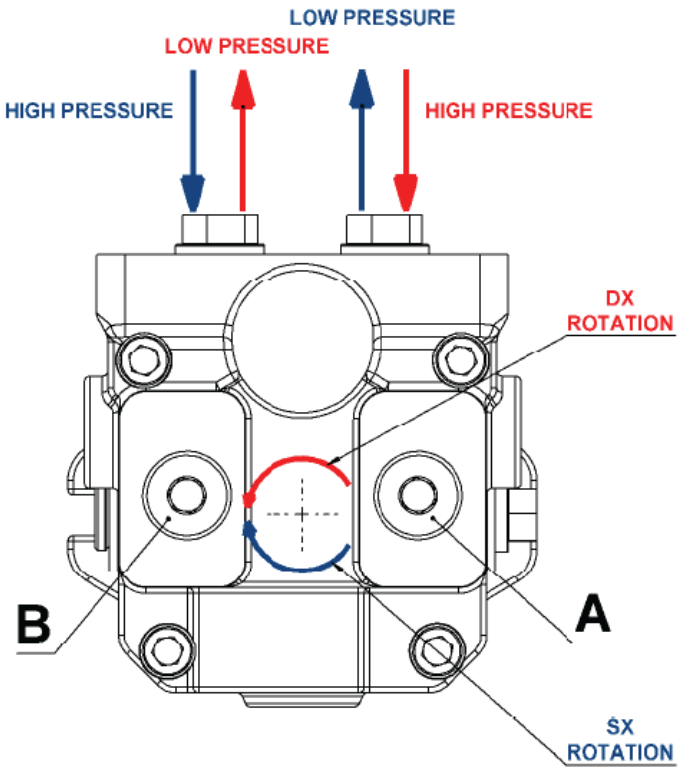
Ø30



Coppia massima:
Maximum torque: 450 N m

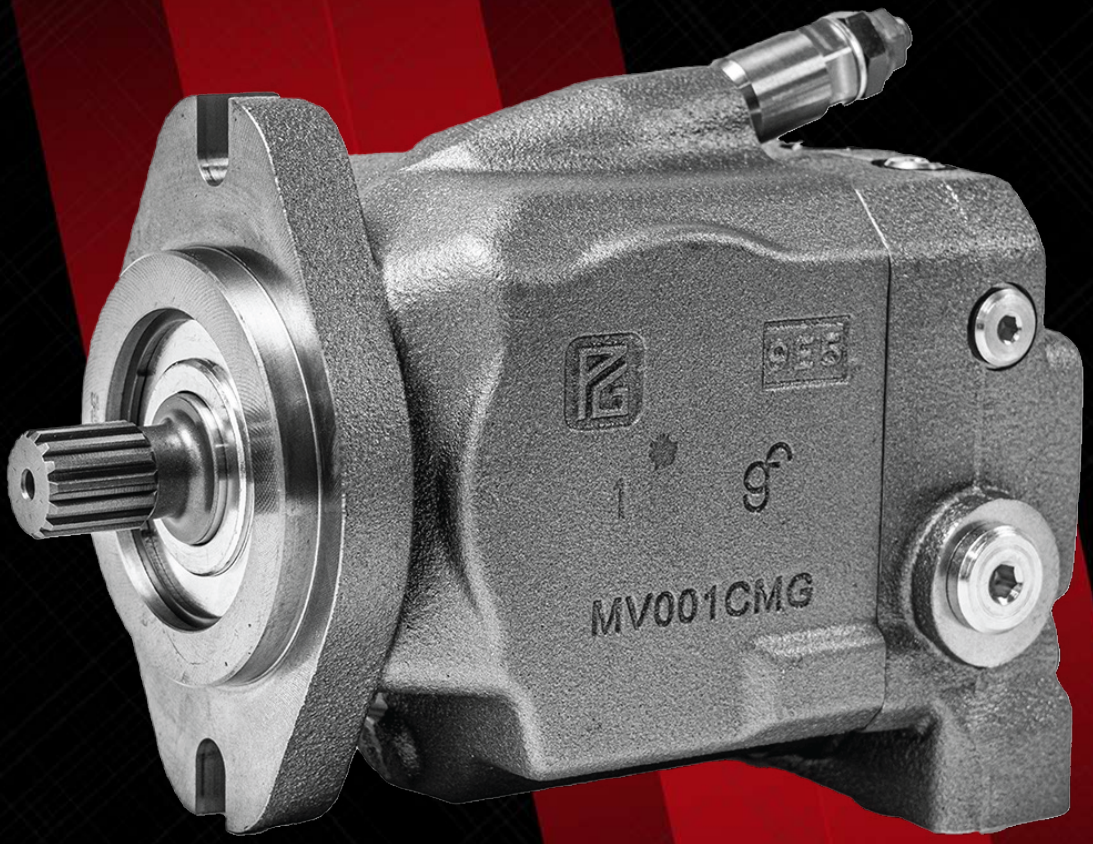
SENSO DI ROTAZIONE
DIRECTION OF ROTATION





Indicare la taratura richiesta (a scelta del cliente) e specificare la configurazione delle valvole di massima: una o due. Nel caso di una sola valvola di massima, precisare il ramo di installazione (A oppure B).

Specify the required setting (as selected by the customer) and indicate the configuration of the maximum relief valves: one or two. In case of a single relief valve, specify the installation branch (A or B).



PISTON MOTORS

MV

46-64

a cilindrata varibile

CARATTERISTICHE TECNICHE

TECHNICAL FEATURES

I motori variabili a pistoni assiali sono stati concepiti per operare sia in circuito aperto che in circuito chiuso.
I vari sistemi di comando disponibili li rendono facilmente adattabili alle esigenze applicative sia per il settore industriale che mobile.

I comandi disponibili sono i seguenti:
- Comando elettrico a 12V (2 posizioni)
- Comando elettrico a 24V (2 posizioni)
- Comando idraulico a bassa pressione (30 bar) (due posizioni)
- Comando idraulico diretto ad alta pressione (due posizioni)

Sono disponibili opzioni accessorie:
- Valvola di scambio
- Valvole di massima pressione

The variable-displacement axial piston motors have been designed to work both in an open and closed circuit.
Control sytems actually available are making easy to use these motors in any applications for industrial and mobile field.

Available control systems are:
- 12V electrical control (2-position)
- 24V electrical control (2-position)
- Hydraulic piloted low pressure (30 bar) (2-position)
- Direct hydraulic control, high pressure (2-position)

The following options are available:
- Exchange valve
- Pressure relief valves

SERIE		MF 46-64
Cilindrata Displacement	cc/giro cc/rev	46-64
Velocità di rotazione massima Max Speed	min^{-1}	4000
Velocità di rotazione minima Min Speed	min^{-1}	300
Pressione continua Continuos pressure	bar (psi)	300 (4350)
Pressione di punta Peak pressure	bar (psi)	400 (5800)
Classe di filtrazione ISO ISO filtration class		ISO 18/16/13, NAS 8
Viscosità olio ottimale Optimized oil viscosity	mm^2/s	15 – 35
Massa Weight	Kg	22

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CODICE DI ORDINAZIONE
ORDERING CODE

MF 64XX - 50	E1	1	B	3	T		

Serie cilindrata / Series displacement

MF 46XX/23	46 CC / GIRO - 46 CC / REV
MF 64XX/23	64 CC / GIRO - 64 CC / REV

NOTA : Per limitazioni di cilindrata diverse, contattare PWG Srl. NOTE: For different displacement limitations, contact PWG Srl.

Comandi / Controls

ID	Servocomando idraulico a distanza Remote hydraulic servo control
E1	Comando elettrico 12v 12v Electrical control
E2	Comando elettrico 24v 24v Electrical control
P1	Comando elettrico proporzionale 12V 12V Proportional electric control
P2	Comando elettrico proporzionale 24V 24V Proportional electric control

Connessioni / Ports

1	Utilizzi A - B posteriori Users A - B rear
2	Utilizzi laterali accoppiati Users A - B coupled sideways

Senso di rotazione / Direction of rotation

B	Bidirezionale (Std) - Bidirectional (Std)

Tipo di abero / Shaft end

3	Scanalato M Z15 - 16/32-DP (Std) Splined shaft Z15 - 16/32-DP (Std)
5	Scanalato M Z13 -16/32-DP Splined shaft Z13-16/32-DP

Versione attacchi / Ports

G	Flangia SAE 6000 3/4” Flange SAE 6000 3/4”
U	SAE (Filetti UNF) SAE (UNF Threads)
T	Porte A-B filelate 3/4” GAS Ports A-B thread 3/4” GAS

Opzioni / Option

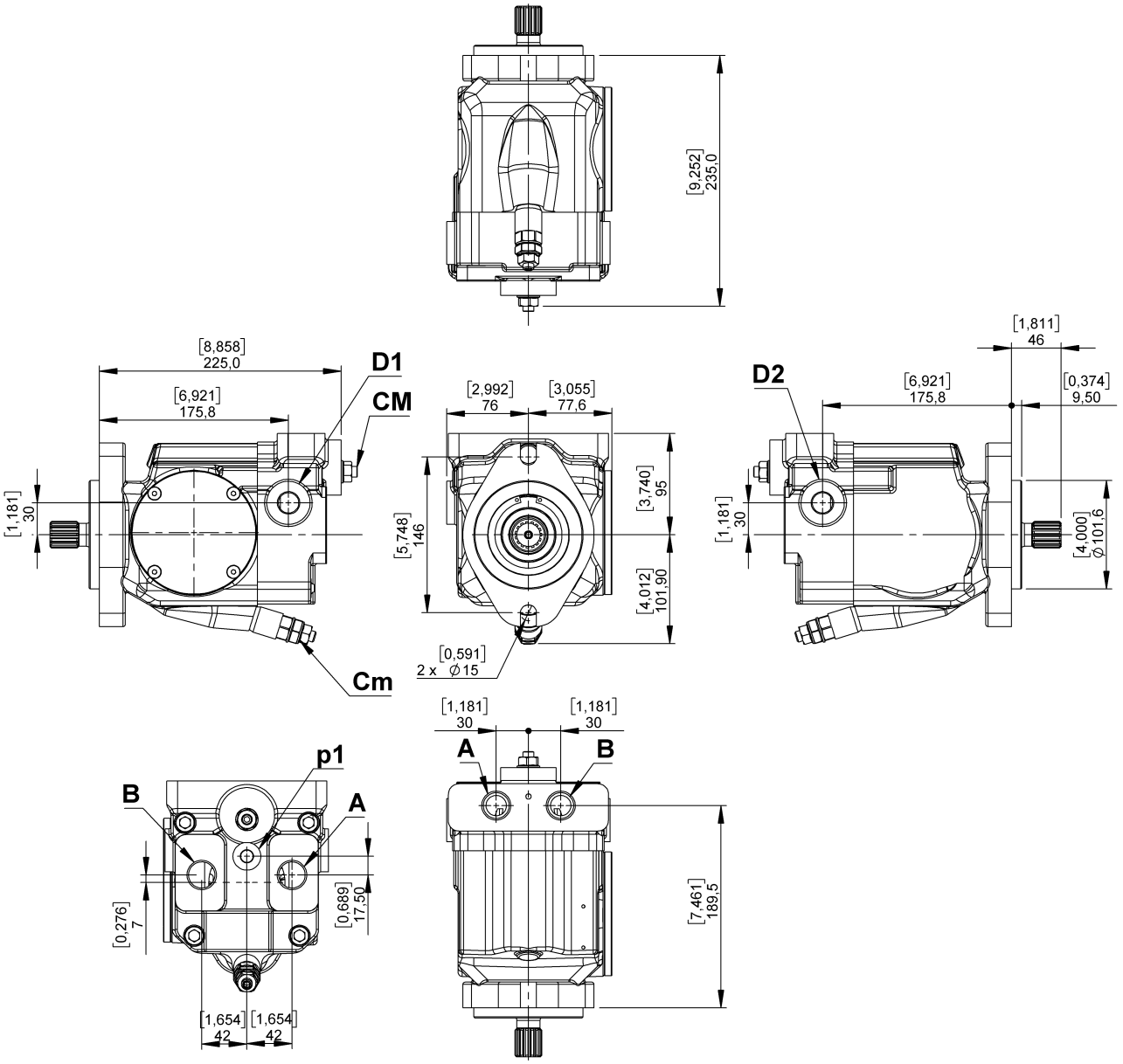
V	Valvola di scambio Exchange Valve
M	Valvole di massima pressione Pressure relief valve Valve
S	Sensore di giri Pressure relief valve Valve

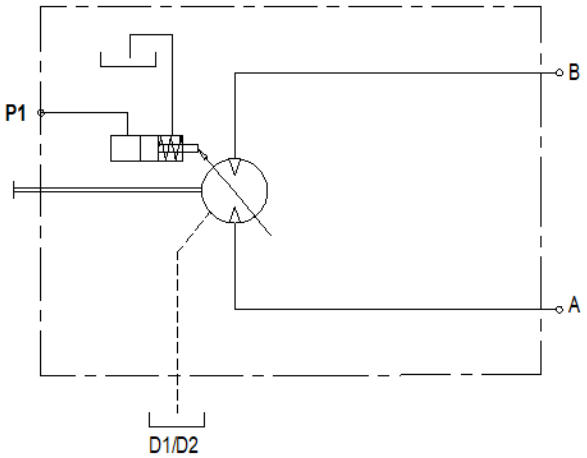
Esecuzioni speciali
Special versions

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DIMENSIONI MOTORE E REGOLATORE
MOTOR AND CONTROL DIMENSIONS

Servocomando idraulico a distanza
Remote hydraulic servo control



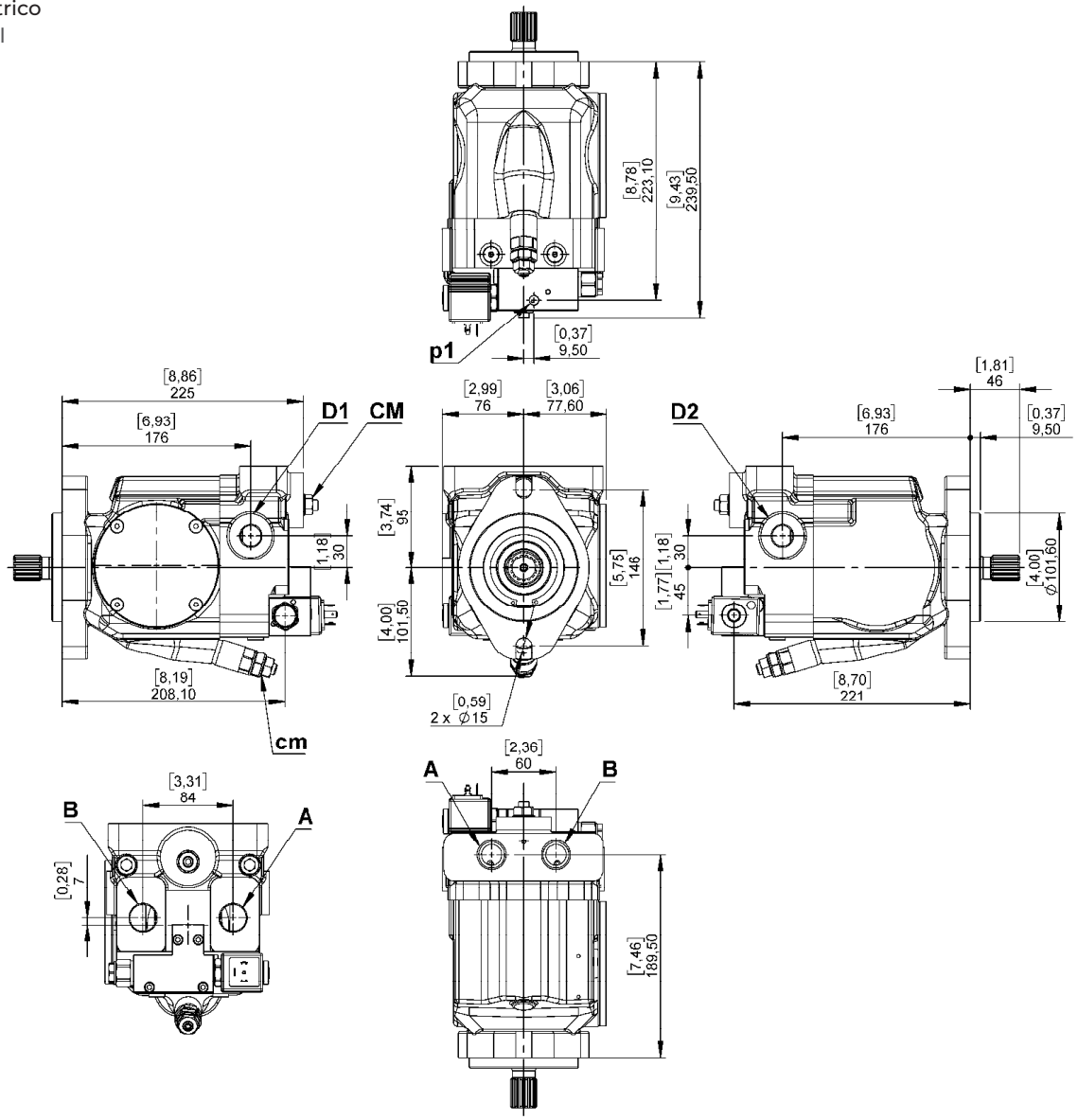


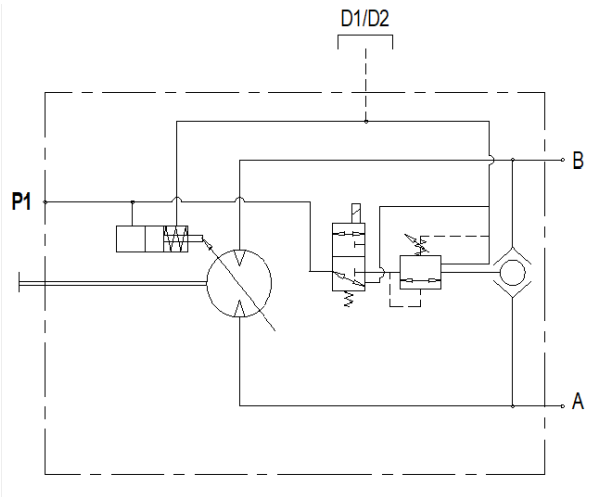
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4 G
D1 – D2: Drenaggi - Drain ports – 1/2 G
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 1/4" G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UN-F-2B D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 7/16-20 UNF-2B

DIMENSIONI MOTORE E REGOLATORE
MOTOR AND CONTROL DIMENSIONS

Comando elettrico
Electric control





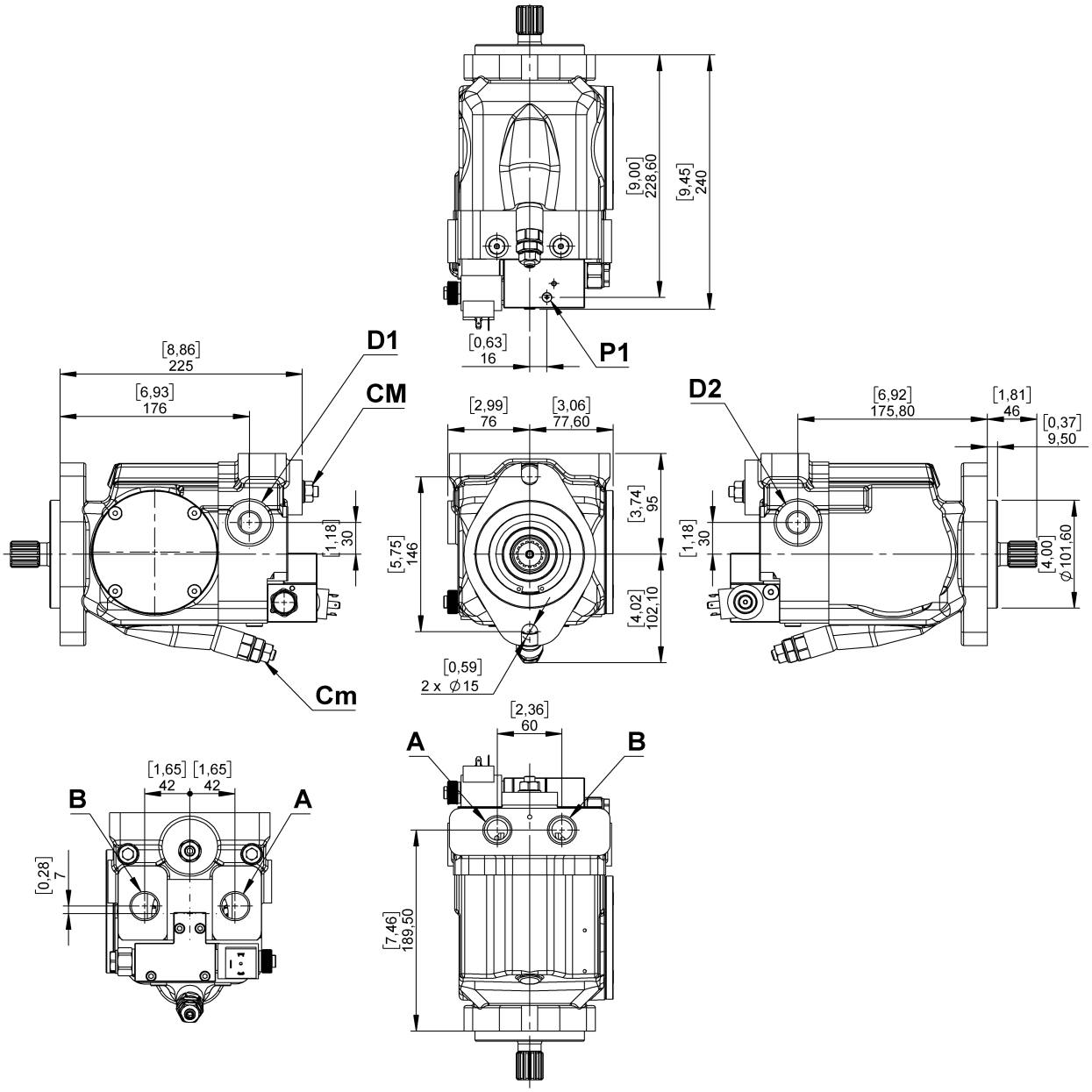
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4" G
D1 – D2: Drenaggi - Drain ports – 1/2" G
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 1/8" G

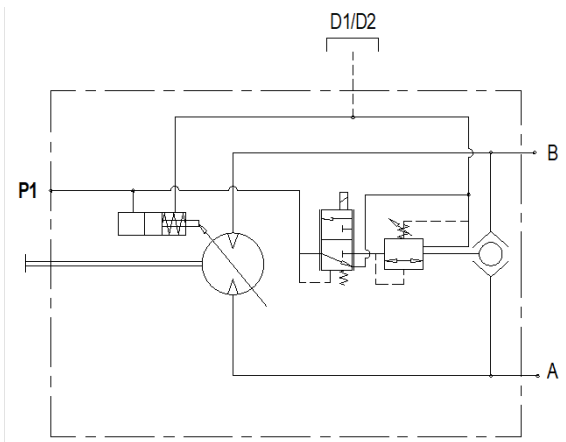
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 7/16-20 UNF-2BB

ACCESSORI E DIMENSIONI PRESE DI MOTO

ACCESSORIES AND THROUGH DRIVES DIMENSIONS

Comando elettrico proporzionale
Proportional electric control





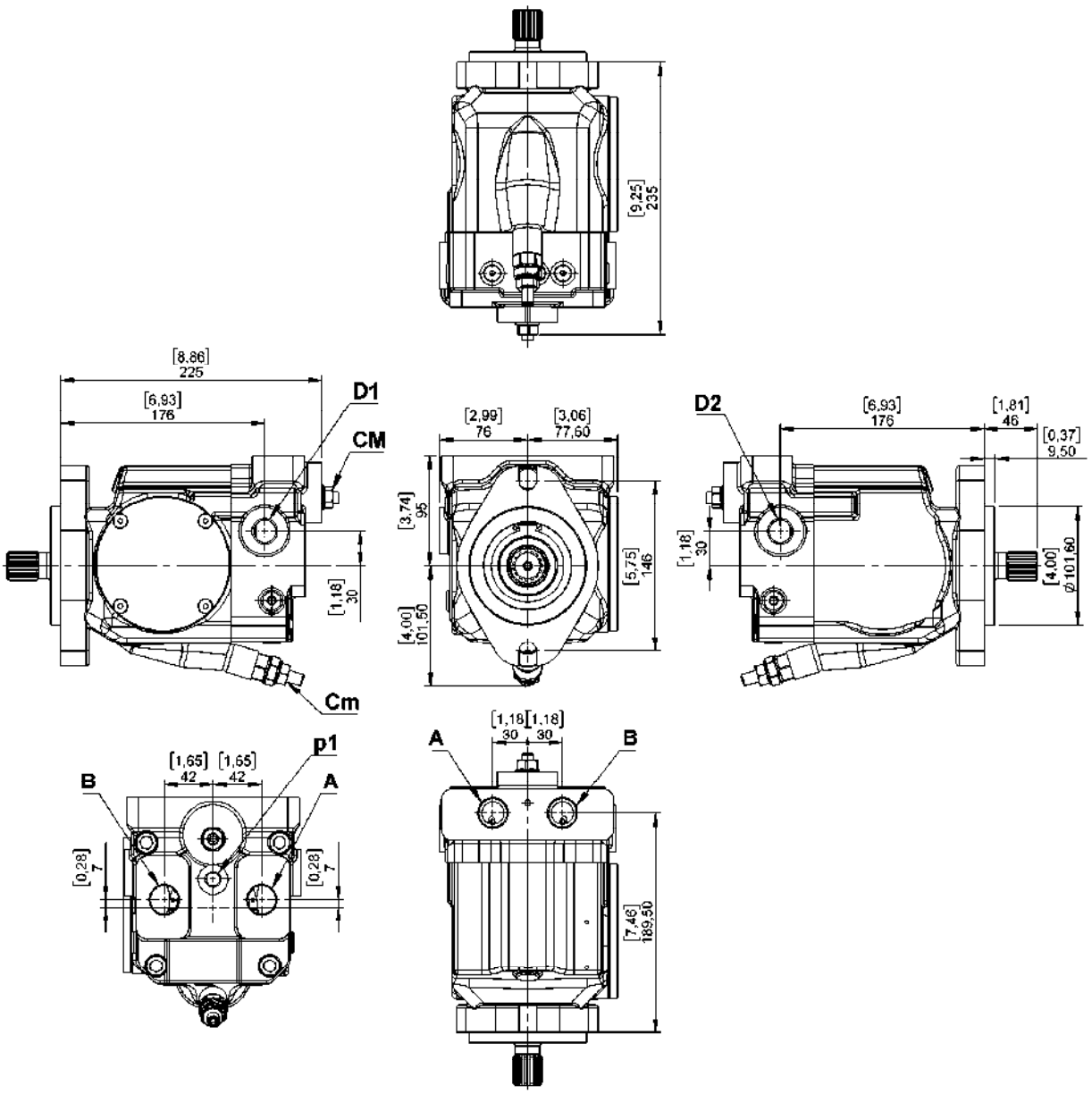
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4" G
D1 – D2: Drenaggi - Drain ports – 1/2"G
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 1/8" G

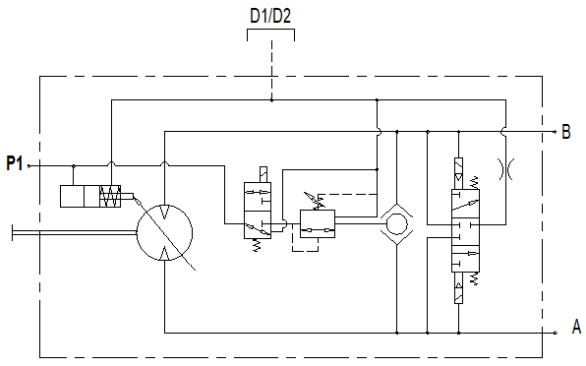
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 7/16-20 UNF-2BB

DIMENSIONI MOTORE E REGOLATORE

MOTOR AND CONTROL DIMENSIONS

Valvola di scambio
Exchange valve





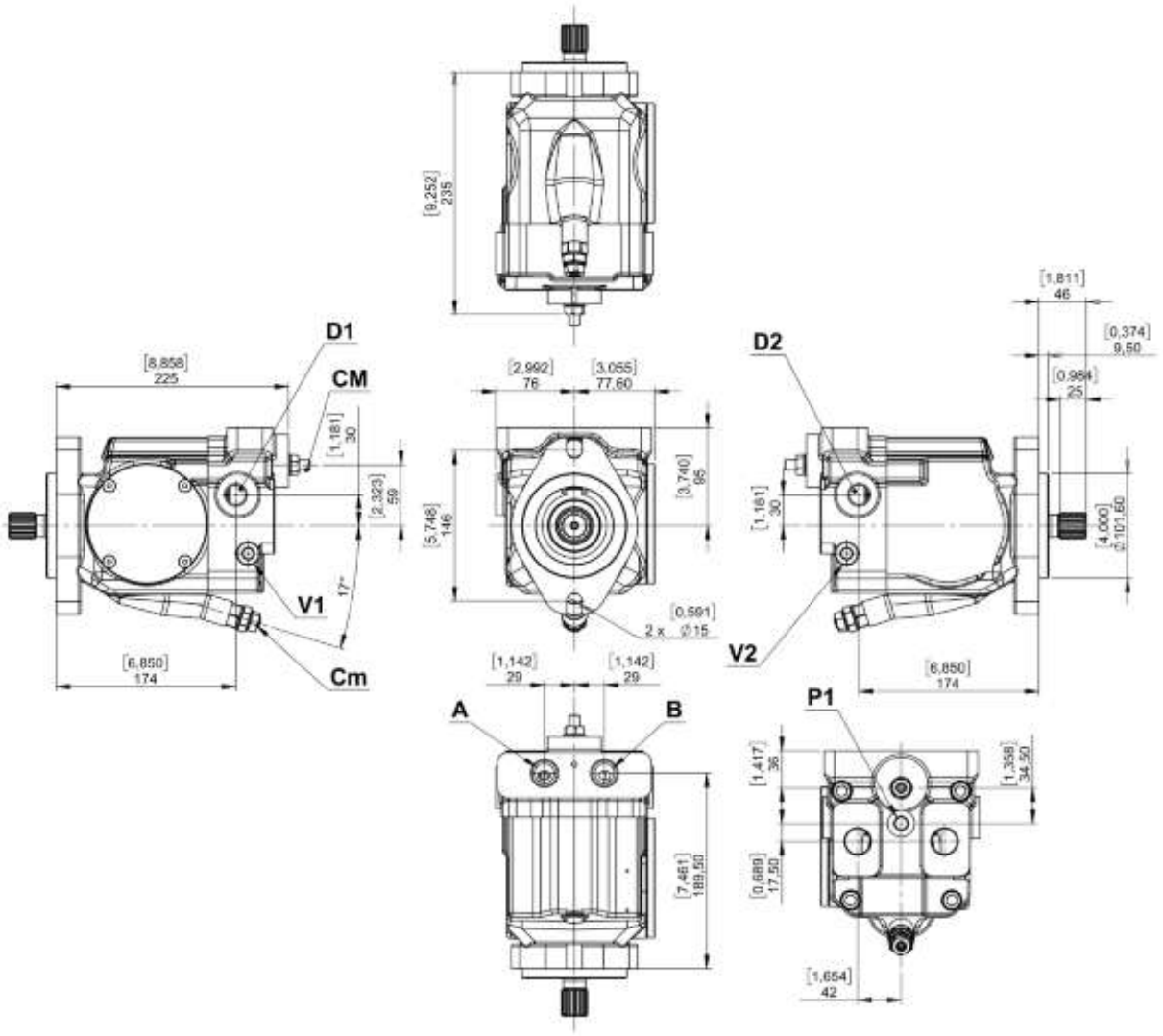
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4" G
D1 – D2: Drenaggi - Drain ports – 1/2" G
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 1/4" G

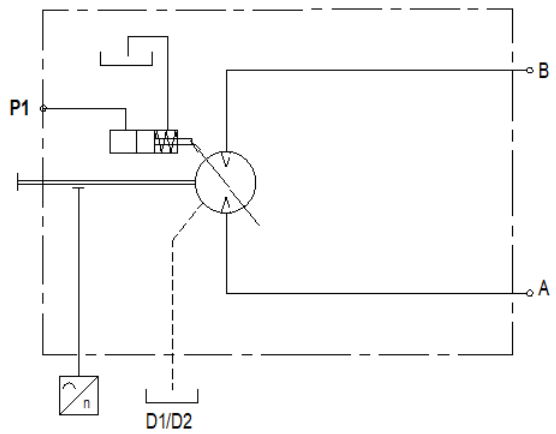
VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 7/16-20 UNF-2BB

DIMENSIONI MOTORE E REGOLATORE
MOTOR AND CONTROL DIMENSIONS

Valvola di massima pressione
Pressure relief valve

Da specificare taratura e rotazione
To specify calibration and rotation



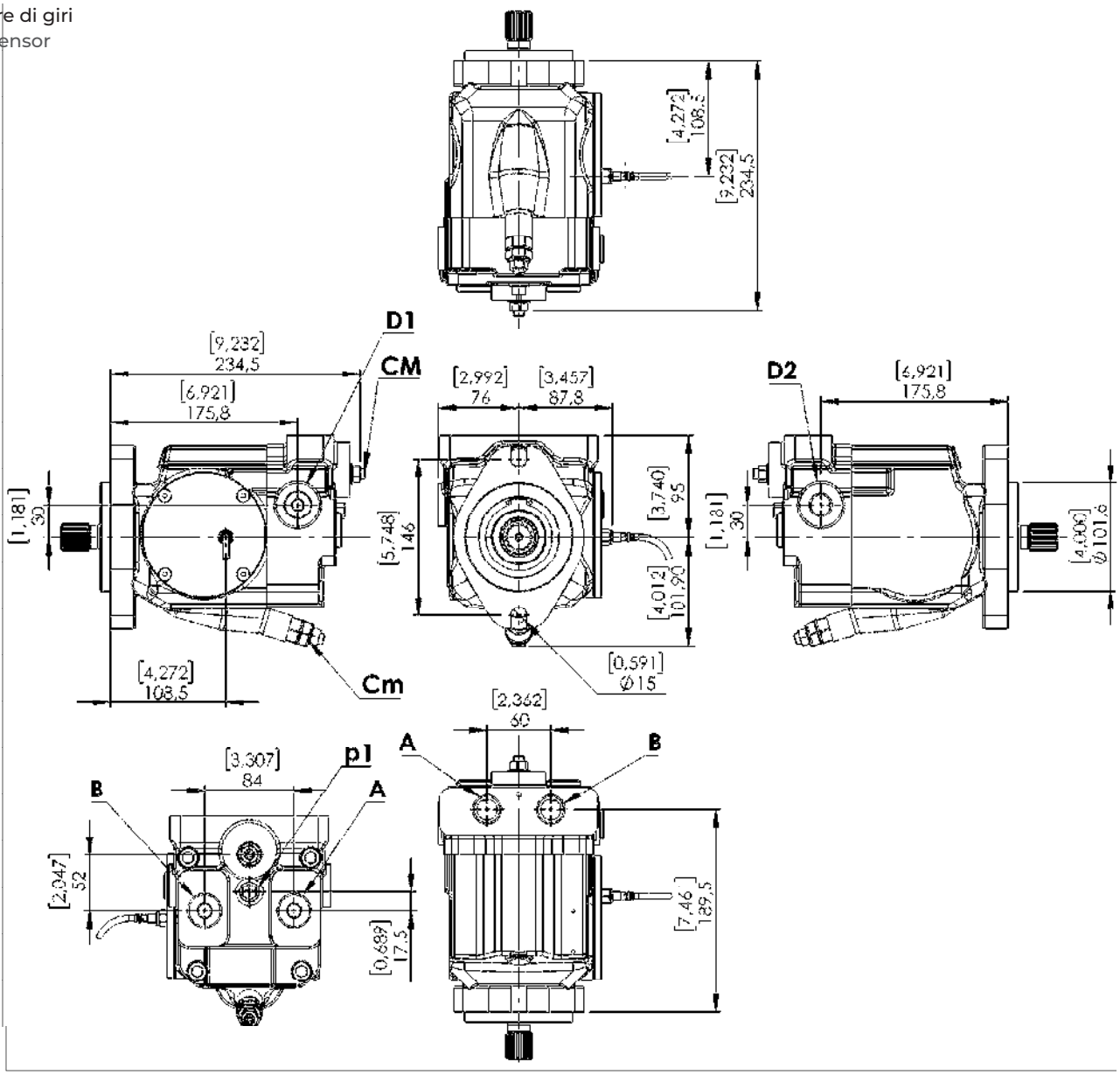


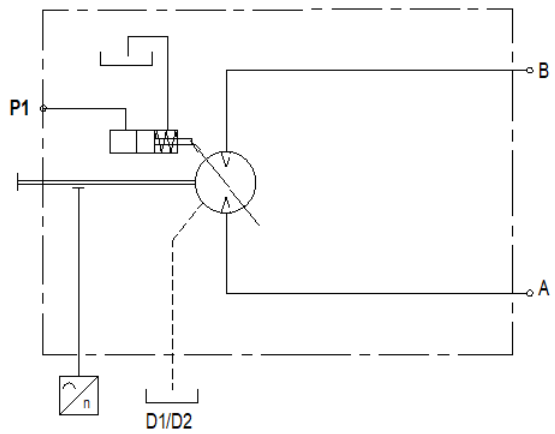
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4" G
D1 – D2: Drenaggi - Drain ports – 1/2" G
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 1/4" G
V1-V2: Valvole di massima pressione / Pressure relief valves

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
CM: Regolazione cilindrata max / Maximum stroke limiter
Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 7/16-20 UNF-2B
V1-V2: Valvole di massima pressione / Pressure relief valves

DIMENSIONI MOTORE E REGOLATORE
MOTOR AND CONTROL DIMENSIONS

Sensore di giri
RPM sensor

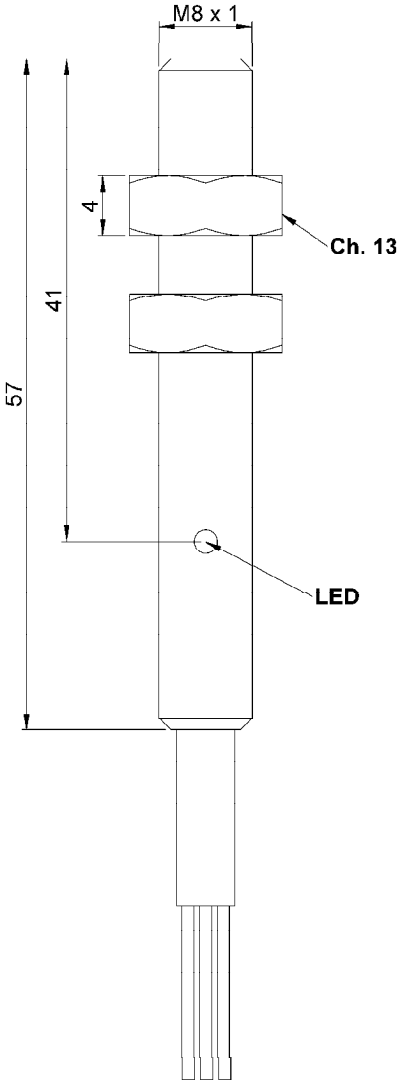




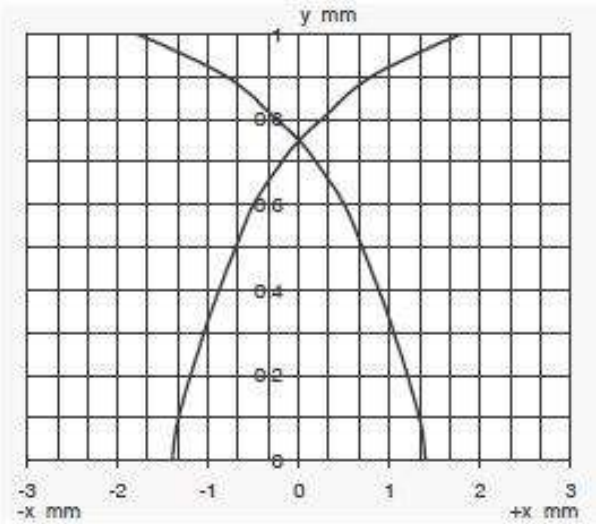
VERSIONE METRICA - METRIC VERSION
A – B: Linee di pressione - Pressure ports – 3/4" G
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p1: Porta / Port – 1/4" G

VERSIONE SAE-A - SAE-A VERSION
A – B: Linee di pressione - Pressure ports – 1 1/16-12 UNF-2B
D1 – D2: Drenaggi - Drain ports - 3/4-16 UNF-2B
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Cm: Regolazione cilindrata min / Minimum stroke limiter
p1: Porta / Port – 7/16-20 UNF-2BB

SENSORE DI PROSSIMITÀ INDUTTIVO
INDUCTIVE PROXIMITY SENSOR



Voltaggio potenza fornita / Power supply voltage		
Massima tensione operativa Rated operation voltage	Ue	24 V DC
Intervalli nelle tensioni operative Operatng voltage range	Ub	10 ... 60 V DC
Corrente di alimentazione a vuoto No-load supply current	Io	10 mA
Uscite / Output		
Uscita Output		3 wire pnp 3 Leiter DC pnp
Corrente massima operativa Rated operational current	Ie	200 mA
Caduta di tensione Output voltage drop	Ud	2,5 V
Corrente residua Off-state current		0,01 mA
Tempo / Times		
Frequenza dei cicli operativi Frequency of operating cycles	f	5000 Hz
Tempo di ritardo Time delay before availability	tv	40 ms
Temperatura / Temperature		
Temperatura nominale Rated temperature	Tu	25 °C
Temperatura ambiente Ambient temperature range range	Ta	-25...+70 °C

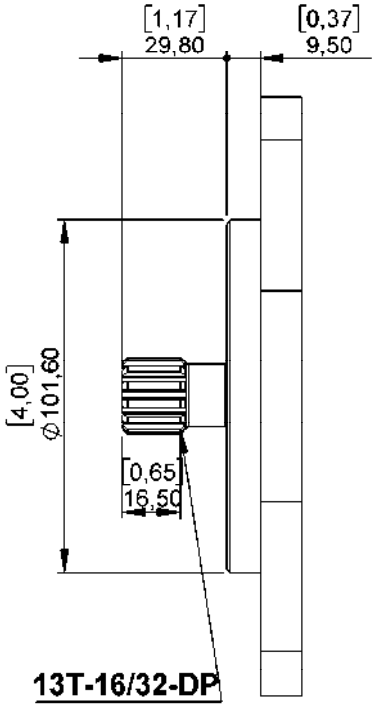


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DIMENSIONI ALBERI
SHAFTS DIMENSIONS

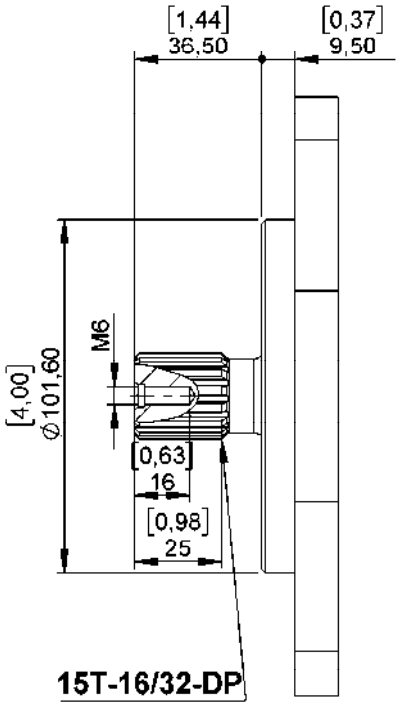
Estremità alberi
Spline shaft + Round shaft

MZ13 / M13T



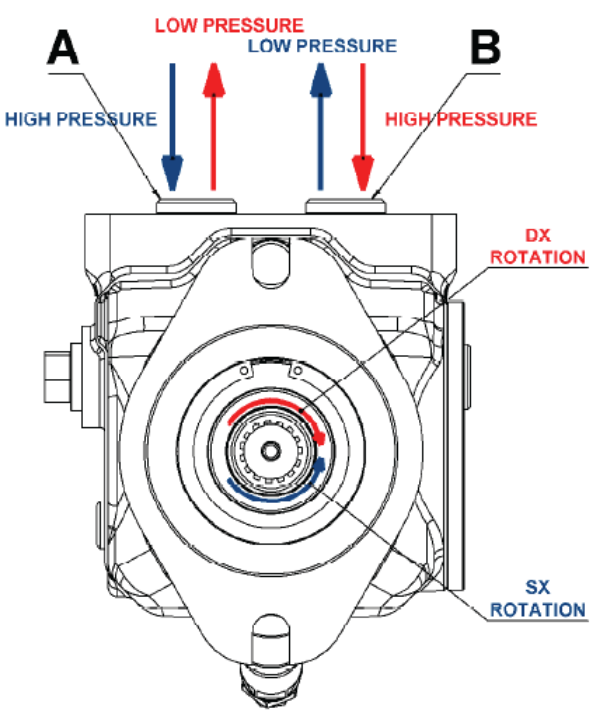
Coppia massima:
Maximum torque: 279 N m

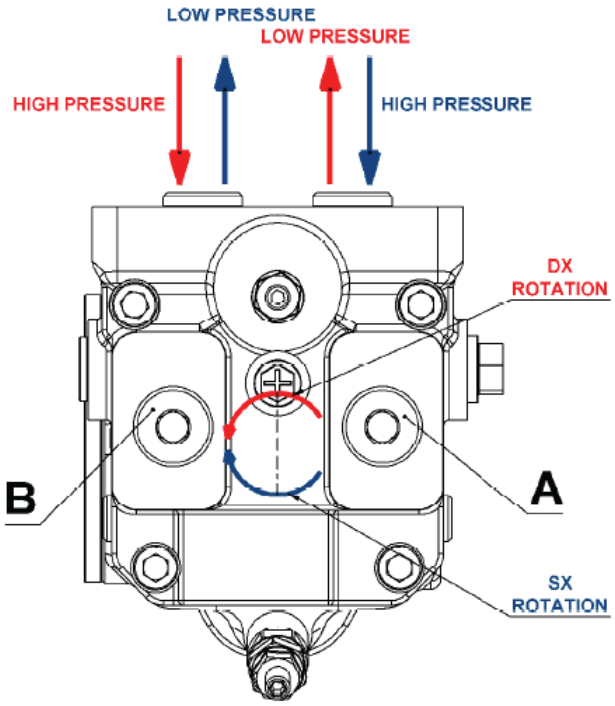
MZ15 / M15T



Coppia massima:
Maximum torque: 468 N m

SENSO DI ROTAZIONE
DIRECTION OF ROTATION





Indicare la taratura richiesta (a scelta del cliente) e specificare la configurazione delle valvole di massima: una o due. Nel caso di una sola valvola di massima, precisare il ramo di installazione (A oppure B).

Specify the required setting (as selected by the customer) and indicate the configuration of the maximum relief valves: one or two. In case of a single relief valve, specify the installation branch (A or B).

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PWG S.r.l.

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